

PIPES & PIPELINE FITTINGS MARKET RUSSIA 2012

(DEMO-VERSION)*

* – in DEMO we saved the methodology and terminology, belonging to report for understanding of the sources of information used hereinafter. Either we left the structure of the report, names of all chapters, tables and graphs, as well as brands and suppliers presented in the study. All digits in the text and in tables are replaced by 0 and 1, all letters - by ABC. All the graphs and diagrams were also "killed" in DEMO.

Multi-client research

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1. METHODOLOGY

1.1. INFORMATION SOURCES

The study was performed on the basis of the following information sources:

- **CUSTOMS DECLARATION ANALYSIS**

The information obtained as a result of the customs declaration analysis becomes more reliable from year to year. To find out the market trends, its key tendencies, and the main players there was made the detailed analysis of the customs declarations for 2008-2012. It is worth mentioning that in 2008-2011 it was only possible to make the analysis on the basis of the front pages of declarations. Starting from 2012 we got a possibility to get information contained in extra pages of customs declarations. This made the obtained information more reliable and allowed us to identify pipes by models. As practice shows the difference between the customs data and the real import volume figures is not more than 5-10%. However, we noticed a great difference between the data stated by manufacturers and the data obtained from the customs declarations. In most cases this can be contributed to the fact that Russian customs brokers (deliberately or not) often declare goods under wrong headings. For example, reinforced-plastic pipes are often declared as polypropylene ones and vice versa. The fact that some declarations do not contain the brand name or contain non-existent manufacturing plants also creates some difficulties. Moreover, the customs codes intended for certain groups of products are often mixed up and many importers do not strictly follow the rules for drawing up customs declarations. In the course of interviews with manufacturers and importers we managed to clarify this situation and to identify the real volume of imported products.

In 2011-2012 we managed to identify more than 90% of imported products by models. This allowed us to distribute pipes and pipeline fittings by types, size, technologies, reinforcing types and etc. In view of the fact that the weight of declared goods is the most reliable information in customs declarations, we managed to identify the average weight of pipes and pipeline fittings. This helped us to exclude from consideration the mentioned above customs declarations containing unreliable information.

Under a lack of information from local manufacturers their product identification by models was made on the basis of their export analysis. It is also worth mentioning that most local manufacturers use imported parts and raw materials for manufacturing both pipes and pipeline fittings. We have analyzed the volume of this import for the biggest local manufacturers for the whole period reviewed in the report and presented the results of this analysis in the report.

- **ROSSTAT DATA**

Some information on a number of the biggest local manufacturers was obtained from Rosstat. In a number of cases this was the only possible source of information. In the course of interviews with the representatives of leading companies we manage to confirm the adequacy of these data and to enhance their reliability in details.

- **INTERVIEWS WITH MANUFACTURERS AND IMPORTERS**

Whatever customs information is correct, it should be completed with the data obtained from the equipment distributors and manufacturers. In the course of this report preparation there were conducted interviews with many Russian manufacturers, representatives of foreign companies and big importers.

TABLE 1. Information sources

	Russian manufacturers	Foreign manufacturers' representatives	Distributors	Total
Interviews	7	3	11	21

Source: Litvinchuk Marketing Co.

1.2. TERMINOLOGY USED IN THE REPORT

This report covers the most interesting and capacious market segments of pipes and pipeline fittings used for heating and water supply systems. This report includes EXCLUSIVELY pipes and pipeline fittings intended for domestic systems.

This report does not cover major pipelines and subsurface thermally insulated cross-linked polyethylene pipes systems.

This report covers the following segments:

- polypropylene pipes
- metal-reinforced plastic pipes
- cross-linked polyethylene pipes
- polybutene pipes
- copper pipes

All the segments include both pipes and their fittings. According to Wikipedia a fitting is used to connect pipe sections to adapt to different sizes or shapes. The only exception was made for polyethylene fittings which also include polypropylene filters, shutoff and control valves, as well as attachment, clamping and supporting devices. We did it deliberately as these elements are integral parts of pipeline systems and intended exclusively for polypropylene pipes. At that brass and steel filters, as well as ball plug valves can be used for both the pipe segments considered in the report and steel, cast-iron, PVC, PE and other pipe segments. And our research does not cover this equipment.

Below we provide the terminology used in the report and definitions of terms to be sure in their unambiguous interpretation.

Polypropylene pipes - the **pipes** made of Random copolymer polypropylene PPR-C (Type 3). This material obtained as a result of reaction to polymerization of propylene and ethylene taken in certain proportions with a chain of ethylene molecules ensures the main physical and chemical properties of pipes and fittings made of this material. The pipelines made of polypropylene do not rust and rot, as well as do not change the taste and chemical properties of flowing liquid.

These polypropylene pipes are mainly applied in heating, cool and hot water supply systems.

These polypropylene pipes have the following advantages:

- reliability and durability
- complete lack of corrosion and encrustation of pipes in the course of their use
- a wide range of fittings allows to install practically any scheme of pipes
- simple and rapid installation, a lack of consumables
- full leak resistance of welds
- high chemical durability and environmental friendliness of pipes
- lower (as compared to metal pipes) level of liquid flow
- pipe painting is not required
- resistant to several cycles of freezing in case of pressure



Figure 1. Polypropylene pipes and fittings

Polypropylene pipes also have disadvantages:

- pipe inflexibility (as compared to reinforced-plastic and PEX pipes)
- high cost due to greater amount of fittings required for 1 m of pipes
- installation requires special skills and a special kit of instruments for pipe welding and dressing
- high linear expansion coefficient of unreinforced pipes
- a risk of bubble formation on externally reinforced pipes, which, however, does not have a great effect on their technical characteristics

At present time polypropylene pipes are manufactured of two main types of material - PPR80 and PPR100. The main advantage of the latter material is that the break pressure of a tube made of PPR100 having the same thickness as a tube made of PPR80 is approximately by 20% higher.

At the moment manufacturers produce five types of pipes:

- PN10 - for cold-water supply;
- PN16 - for cold-water supply and under floor heating;
- PN20 - for hot and cold-water supply;
- PN25 - for heating, for hot and cold-water supply;
- PN32 - for heating, for hot and cold-water supply.

At that PN32 pipe is only produced by one manufacturer (Dizayn), PN16 pipes are not practically used most likely because of their short service life.

Estimated pipeline service life is 50 years (cold water) and 25 years (hot water). Coolant temperature can reach 95 ° C, depending on working pressure. Short-term increase in temperature up to 100 ° C is also possible.

Reinforced-plastic pipes represent a multilayer structure consisting of inner and outer layers of **cross-linked** polyethylene and an intermediate layer made of aluminium. Unlike other polymer pipes reinforced-plastic pipes have 100% protection from oxygen entry into system. An inner cross-linked polyethylene layer of a reinforced-plastic pipe has a smooth surface that reduces water friction in water supply and heating systems. This prevents pipes from getting lime scale and rust formation. Inner and outer cross-linked polyethylene layers provide the aluminium layer of reinforced-plastic pipes with protection from acids, alkalies, moisture and other aggressive environments. This ensures a long-term service life of reinforced-plastic pipes.

At the moment manufacturers produce three main types of reinforced-plastic pipes with inner and outer layers made of different materials:

- **PEX-AL-PEX - five-layer** pipes with inner and outer layers made of molecular **cross-linked** polyethylene **PEX**, a reinforcing aluminium layer and glue lines between them.
- **PERT-AL-PERT - five-layer** pipes with inner and outer layers made of **heat-proof** polyethylene **PE-RT**, a reinforcing aluminium layer and glue lines between them. The specific feature of PE-RT (ethylene octene copolymer) material molecular structure is that the main linear ethylene chain interweaves with the octane chain and forms a very flexible hard-textured material having a long-term service life.
- **PERT-AL-PEHD** pipes differ from **PERT-AL-PERT** pipes with outer pipe layer material. In this case the outer layer is made of high density polyethylene (PE-HD).

In this report we did not make any differences between PERT-AL-PEHD and PERT-AL-PERT pipes as we did not consider them to be significant.

In most cases reinforced-plastic pipes are used together with crimping and press-fittings. Crimping fittings represent rubber-sealed collet connections packed by a special ring with the use of an ordinary screw key. This type of fittings has both advantages (do not require special instrument) and disadvantages (such fittings require regular examination to avoid leakages and the relevant adjusting; they can not be used for pipes laid in walls and under floor). Press fittings do not have such disadvantages, however they are more expensive and require special press pneumatic instrument.

The advantages of plastic pipes are as follows:

- chemical resistance
- complete absence of corrosion and encrustation of the pipe flow area while in operation
- low thermal conductivity which prevents condensate formation on the outer pipe walls
- light weight
- strength and elasticity
- low cost (This being the case, fittings can hardly be called cheap).

Disadvantages:

- Reinforced-plastic pipes must not be installed at air temperatures below +10 C.
- Freezing of heat transfer media simply results in pipe breakage which makes open-cut pipe laying impossible.
- high thermal-expansion coefficient (intended for use in water supply systems at a maximum water operating temperature of 95C)



Figure 2. Reinforced-plastic pipes

Metal-reinforced plastic pipes are used in heating systems and hot and cold water supply systems as well as in floor heating systems.

Cross-linked polyethylene pipes can be divided into two classes: **PEX** and **PERT**

PEX-pipes are made of HDPE by chemical cross linkage of molecules making pipes acquire properties necessary for use in heating systems and water supply systems. There are several methods of polyethylene crosslinking, namely:

- peroxide crosslinking (PEXa)
- silane gas treatment (PEXb)
- electron flow treatment in an electromagnetic field (PEXc)

If the PEXb method is applied, no traces of a catalyst are contained in polyethylene and it can be used in making pipes for sanitary purposes and drinking water supply, while the PEXc method is more environmentally friendly. Pipes are widely used in warm water floor systems and heating radiator installations as well as in surface heating and cooling and in snow melting systems. The said pipes are more rarely used in water supply systems.

PERT-pipes do not need to be cross-linked as they are made of thermally stabilized polyethylene. These pipes slightly overtop PEX-pipes by their characteristics and can be used for heating and water supply.

In order to prevent oxygen penetration into the system, manufacturers have launched production of EVOH-pipes with an oxygen barrier. Currently, there are variations in the EVOH-layer application, both in PEX-pipes and in PERT-pipes.

PEX-pipes and PERT-pipes have such properties as:

- thermal stability;
- mechanical strength;
- resistance to cracking;
- chemical resistance and hydraulic endurance;
- durability;
- elasticity.
- light weight



Figure 3. Cross-linked polyethylene pipe

Disadvantages are practically the same as those of metal-reinforced plastic pipes.

To connect PEX and PERT-pipes axial press fittings (PPSU and brass fittings) are most commonly used, while compression fittings, press fittings and push-fittings are used more rarely. With regard to a high proportion of polyethylene pipes used in heat-insulated floor systems, the fitting/pipe ratio is, perhaps, the lowest in segments under consideration.

Polybutene pipes have not become widely used in Russia. Such an insignificant brand exposure may be due to expensiveness and lack of installers' and engineers' awareness with regard to system capabilities and technical properties of the pipes. Actually, the segment is represented by 4-5 brands and has an extremely insignificant impact on the market as a whole.

Polybutene pipes are connected by fittings made of polybutene.

Copper pipes are used both in heating and water supply systems of buildings and in the manufacture of heat exchangers, air conditioning systems and as connecting pipes for sanitary appliances (siphons, mixer taps) etc. In this report, only metric copper pipes used in heating and water supply systems are reviewed in the copper pipes segment. They can be quite easily distinguished from air-conditioning pipes because, firstly, the diameters of these pipes are stated in metric units as opposed to inches. Secondly, wall thickness, subject to diameter, ranges from 1mm to 1.5mm. (For larger diameters wall thickness may range up to 3mm, however there is an extremely small number of such pipes used in heating systems). Thirdly, only special grade pipes are used in heating systems (mainly those meeting DIN EN1057). Obviously, oval and rectangular pipes are not suitable for heating and water supply systems. There are not so many companies which are involved in supply as well as manufacture of plumbing copper pipes. Merely on the basis of information on suppliers and consignees most of the supplies can be sorted out which are of no interest for our research.



Figure 4. Polybutene pipe



Figure 5. Copper pipes and fittings

So, copper pipes can be divided into **annealed (soft)** and **unannealed (hard) ones**. The first type is normally supplied in 15-m, 25-m, 50-m or 100-m coils. The second type is transported in 2.5-5m cut-to-length pieces.

Annealed copper pipes are softer and more flexible, however, they are distinguished by less strength. Such pipes are manufactured by special heat treatment after which pipes acquire their additional properties. Due to their relative fragility the use of annealed pipes is limited to domestic utility systems. Their main advantage is easy installation and plasticity. Unannealed copper pipes are more durable and serviceable in operation, however, they are not characterized by specific plasticity.

Among the advantages of both soft and hard copper pipes the following can be mentioned:

- Copper pipes are characterized by high corrosion resistance and plasticity while they keep their plasticity also at low temperatures. When water freezes in such a pipe it is only slightly deformed and after thawing it regains its shape.
- Operating pressure is higher as compared to steel pipes.
- Low roughness (3 times lower as compared to polymeric pipes and 50 times lower as compared to steel pipes).
- These pipes do not corrode and are free from encrustation.
- Aesthetic appeal of copper pipes makes it possible in some cases to lay pipes deliberately uncovered in order to intentionally demonstrate the pipes without hiding them into walls or floors.

The main disadvantage of copper pipes is their high cost as well as the cost of fittings and installation.

Generally, two types of fittings are used to connect copper pipes: bronze and copper fittings for soldering as well as press fittings. Curiously, the businesses of pipes and fittings manufacturers do not overlap, i.e. manufacturers of copper pipes do not make fittings and manufacturers of fittings do not make pipes.

It ought to be particularly noted that copper pipes gained widespread especially in Siberia specifically because of their low-temperature plasticity and resistance to freezing.

Brass fittings are fittings made of brass. This category includes all fittings used in utility systems like heating and water supply systems where such fittings are used to connect elements of metal-reinforced plastic pipework and pipes made of cross-linked polyethylene. Currently, it is not possible to evaluate, with a sufficient degree of accuracy, the market segmentation with regard to various types of brass fittings. The analysis of customs declarations revealed that it is not possible to make a detailed estimation with high confidence as regards the number of fittings of different types supplied by any given company because all fittings containing brass are custom cleared with the same custom code and in most of the cases all types of brass fittings are documented in the same declaration.



Figure 6. Brass press fittings

So, brass fittings can be conditionally divided into five categories, namely:

- threaded fittings;
- press fittings;
- crimp (collet) fittings;
- axial fittings;
- push-fittings;

Among them only threaded fittings are not suitable for installation of metal-reinforced plastic pipes and PEX/PERT pipes, however they can be used in all systems without exception to make connections to ball plug valves, filters, pumps, etc.

The cost of fittings directly depends on the manufacturer and product weight, therefore a comparison was made in terms of the total weight of fittings supplied and in terms of money turnover.

PPSU-fittings reviewed by us apart from brass fittings are made of polyphenylsulfone. This material has high impact strength and chemical resistance and good dimensional stability at temperatures up to 180C. PPSU fittings are made by European manufacturers of metal-reinforced plastic pipes and PEX pipes for their reliable connection. Predominantly, these are axial fittings.

Further, for clarity we present a table which reflects what fittings and to what extent are suitable for various types of pipes:

TABLE Correspondence of pipes and fittings, %

Types of pipes / fittings	Polypropylene fittings	Brass press-fittings	Brass push-fittings	Brass crimp (collet) fittings	Brass threaded fittings	Brass fittings with a coupling nut (Multi-Fit)	Diffusion-welded fittings PERT	Brass axial pressed fittings	PPSU-fittings	Copper and bronze welding fittings	Copper and bronze press-fittings	Polybutene welding fittings
Polypropylene pipes	100%	-	-	-	-	-	-	-	-	-	-	-
Reinforced-plastic pipes	-	55%	4%	36%	1%	3%	1%	-	-	-	-	-
Cross-linked polyethylene pipes	-	-	3%	2%	-	-	-	60%	35%	-	-	-
Copper pipes	-	-	-	-	-	-	-	-	-	70%	30%	-
Polybutene pipes	-	-	-	-	-	-	-	-	-	-	-	100%

Source: Litvinchuk Marketing Co.

In order to understand the normal distribution of polymer and copper pipes which we present in the report, a table is stated below to reflect the correspondence of outer and inner diameters of all types of pipes, mentioned in this research:

TABLE presenting the correspondence of outer and inner diameters of all types of pipes

Inner diameter, mm	Outer diameter, mm				
	Polypropylene pipes	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Copper pipes	Polybutene pipes
10mm	16mm	-	12mm	12mm	-
12mm	20mm	16mm	16mm	14mm	16mm
16mm	25mm	20mm	20mm	18mm	20mm
20mm	32mm	25mm	25mm	22mm	25mm
26mm	40mm	32mm	32mm	28mm	32mm
32mm	50mm	40mm	40mm	35mm	40mm
40mm	63mm	50mm	50mm	42mm	50mm
51mm	75mm	63mm	63mm	54mm	63mm
60mm	90mm	75mm	75mm	64mm	75mm
73mm	110mm	90mm	90mm	76mm	90mm
90mm	125mm	110mm	110mm	89mm	110mm

Source: Litvinchuk Marketing Co.

As we can see, there are significant differences with regard to inner wall thickness which causes differences between the outer diameters of pipes in competing technologies (e.g., a polypropylene pipe with a diameter of 20mm corresponds to a metal-reinforced plastic pipe which is 16mm in diameter).

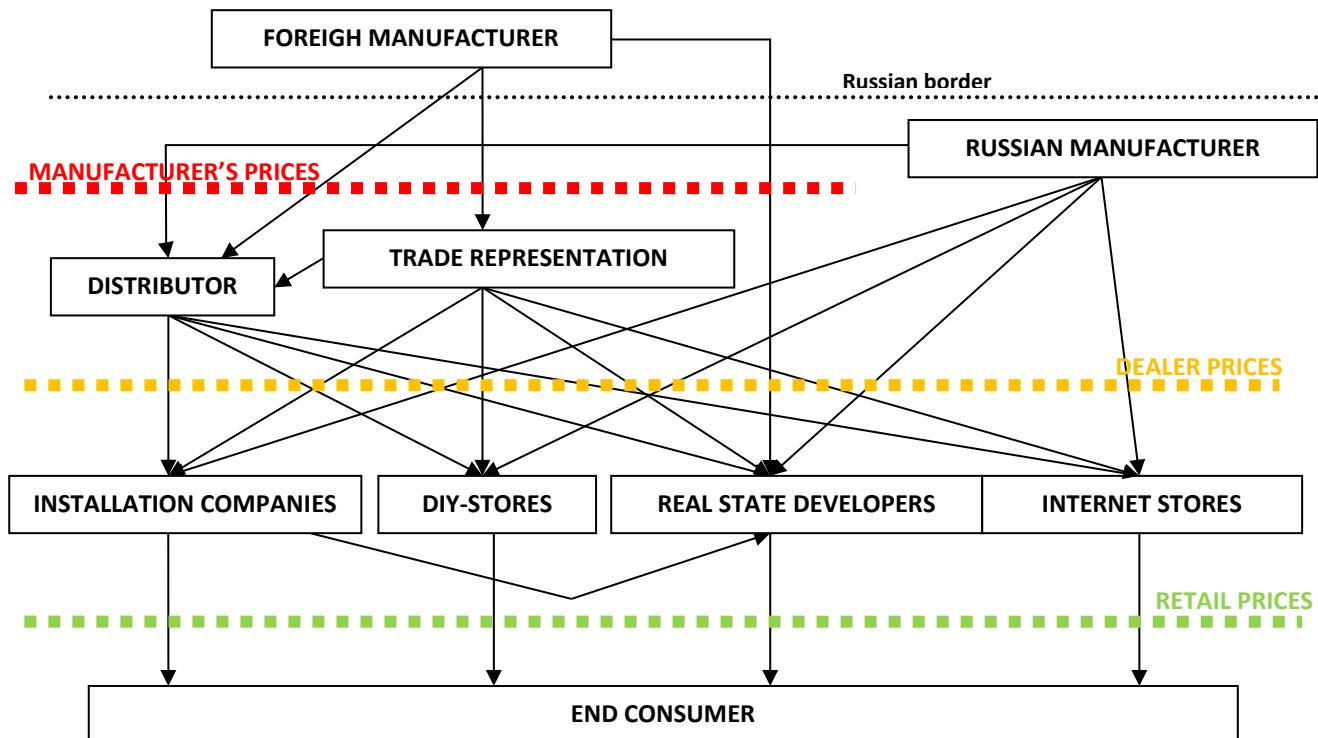


Figure 7. PPSU-fittings

1.3. PRICES

All sales volumes in this report are presented in **dealer** prices. In most cases the initial net price in Russia (i.e. the price of goods after border crossing and after customs duties and VAT) was taken as the basis for conversion. Standard trading margin for various categories of pipes and fittings was added to the said price. In case of apparent understatement of the declared value of pipes and fittings by suppliers in their customs declarations, the dealer prices were calculated according to retail price lists of major distributors, manufacturers or trading missions. In this case, the average discount of installation contractors was deducted from retail price (in most segments it ranges from 35 to 45%). In the absence of recommended retail prices the weighted average retail price in the market was taken as the reference point for some brands. The cost of a copper pipe is composed of the cost of copper to 70-80%. Therefore, prices for copper pipes vary greatly in different years. This was taken into account when drawing up the report.

Summing up the above mentioned, a diagram is shown which reflects different scenarios for distribution of pipes and fittings in Russia and the dealers' prices in which sales volumes are subsequently indicated are presented separately:



In the context of the global crisis in 2009, most manufacturers fixed their prices in hard currency while part of the prices was indicated in rubles, however, there was a significant price increase as compared to 2008. As a result, we managed to get prices for most brands and to make adequate price estimates.

In the event of price calculation in Rubles, the conversion into US dollars was carried out according to the annual average exchange rate based on data provided by the Central Bank.

TABLE 2.1. USD rate trends, rouble

2008	2009	2010	2011	2012
24,86	31,77	30,34	29,41	31,09

Source: Central Bank of the Russian Federation

TABLE 2.2. EUR rate trends, rouble

2008	2009	2010	2011	2012
36,45	44,20	40,00	40,90	39,92

Source: Central Bank of the Russian Federation

2. MARKET SIZE AND STRUCTURE

Aacbc aaaa baaa aacaaa aaa Caaabac bacbaa ca cbcaa acc aaaabca aca baaac aaccbc acaaaba aaa baac aacbbca aaaaabcabba accbaa. Ccbc bc 0000, aaa ac aacacab aacbbca bc cccaabcabcc, aaa bacbaa aacbaa a aacbbca. Aaac, a cacba caccbacc ac cca-ccbaba aabaa aaa bc aca aa caac-aca ca 0010 aaa bacbaa caacaaa aaa babab ca 1,011 bbbbbbcc AAA (aa caaabb ccbsca babaaa bccbaabca BAA). Aaacaca aaa aaaca ca cbcaa baa 111 bbbbbbcc AAA, babba abaabcaa acccacaacc acc 100 bbbbbbcc AAA. (Bc abb aaabacaa ca cbcaa aca abaabcaa acaac cabbab). Aaba ccccaacccaa ac aabaa ca accaca 000 bbbbbbcc baaaca ca cbcaa aca 101 bbbbbbcc abaabcaa. Aaa cbcaa ca ccbsbaaaca cbcaa baa abcacabca bcaa cacbabc, acbabac aaba aaabaca ba ac ababb aaaa ba cac cca aaaaca aaa bacbaa aa a bacba. Aaa aaabaca ca CAB cbcaa caba bc aacccca bc accbaa caaaa. Aaba aaabaca'a abcacabcc baa acbbac babcbc bc aaa accbbca ccbbaaa acaaaa bacbaa, cccabacbcabcc ca acaacabccc aaaabca aa ac abaaccaabba ac aaaabca caabaacca aa babb aa caacaaa bc aaa aaabac ca abaa-cbaa caabaacabab babbabcaaa baaca bcaa cacacabc aaaabca acaaaba bbaa accbccccab abcaba-aaccac cbca ccaabca caba bcac aaa. Aaa cabcacccaa cbbaaabc cbcaa aaabaca aaa baac aacbbca aaa ababbbaaa bccccaaaa bc aaa baaa abba caaca aa ccaaaaaca ba abacaaa cc aaa bacbaa bc aaa CAB cbcaa aaabaca. Aaa aaaca ca aaa bcaa cacacbc当地 ccbccccccbac cbcaa aaabaca aaa baac acaaabbcc accbbca aca cbcaabc accccacaaaa 10% bc 0010 (bc aaa aabaa aacacaaca ca ccbsbaabcc cbcaa). Aaba babca aaa caaaa, cccababbbbac bc aaba aaabaca ba cacbabc aaccaabca aca aaccbbaca' bacabc ba acbca acbc bcaa acc cbcaa aca abaabcaa. Aa a caaaba, aaaca ba a aabaaacababbc ababbac bccccaaaa bc bccac aacba aaac bc aacba ca caacabac.

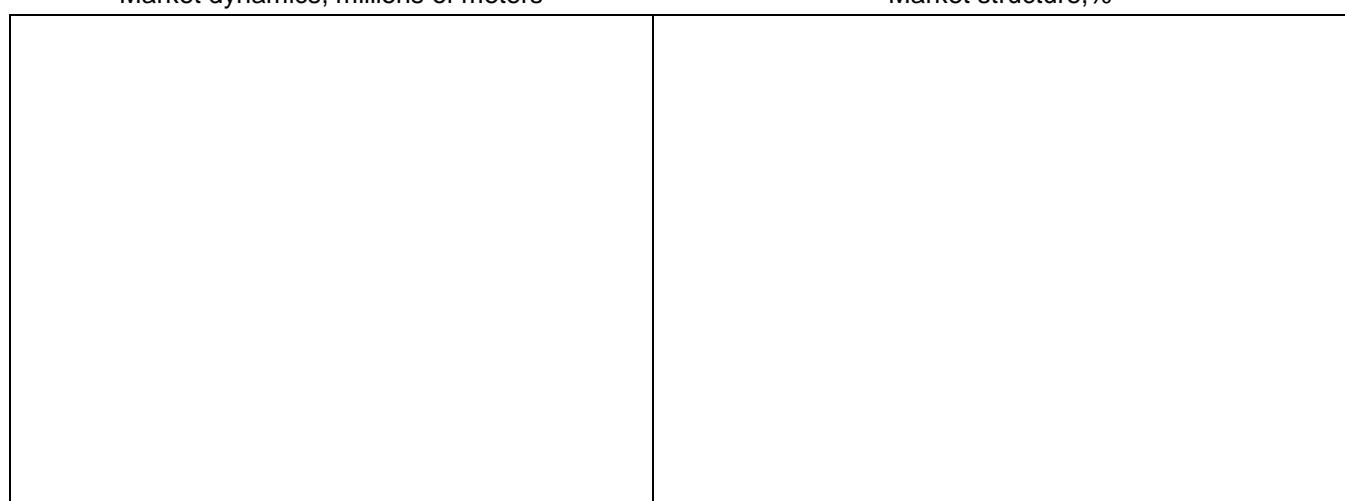
2.1 MARKET IN QUANTITATIVE TERMS

TABLE 3.1. Dynamics of the Russian market of polymeric pipes for heating and water supply systems in 2008-2012, millions of linear meters

Segment	2008		2009		2010		2011		2012	
	mln.m	%								
Cross-linked polyethylene pipes	11,01	1%	1,01	0%	11,10	1%	01,01	1%	01,11	10%
Polybutene pipes	0,00	0%	0,11	0%	0,10	0%	0,00	0%	0,11	0%
Polypropylene pipes	101,11	11%	100,11	11%	110,00	10%	101,11	11%	000,01	11%
Reinforced-plastic pipes	101,00	00%	100,01	01%	101,10	00%	100,00	01%	100,00	00%
Total:	000,01	100%	000,11	100%	001,01	100%	001,10	100%	010,11	100%

Source: Litvinchuk Marketing Co.

DIAGRAMS 1. The Russian market of polymeric pipes for heating and water supply systems in 2008-2012



Source: Litvinchuk Marketing Co.

Aa ba cac cbaacbc aaa accb ABAACABA 1, baac caacabacbc aaaa ccbcbaacbc cbcaaa bacbaaa, aaa aaabaca ca baaab-cabcacccaa cbaaabbc cbcaaa ba aacbcbbca acaac aaa ccaaaaca ca CAB cbcaaa aaabaca, cc aaa cca aaca, aca ccbccccccbacca cbcaaa aaabaca, cc aaa caaac aaca.

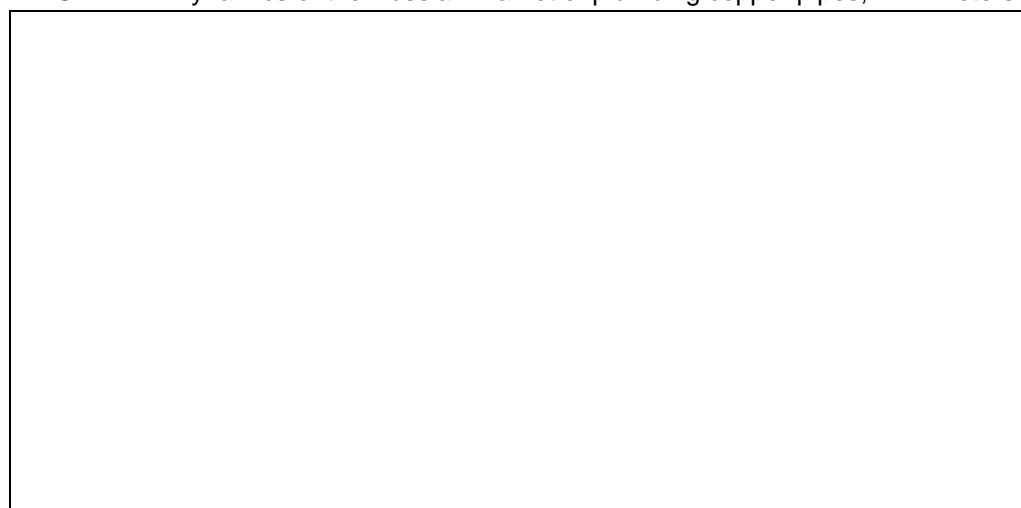
TABLE 3.2. Dynamics of the Russian market of copper pipes for heating and water supply systems in 2008-2012, millions of linear meters

Segment	2008	2009	2010	2011	2012
Copper pipes	0,11	0,01	0,10	1,10	0,01

Source: *Litvinchuk Marketing Co.*

Cccccac cbcaa ba aaa cc当地 bca aaabaca aaaa aacbba a aacbbca bc aaa baaa caac. Bc bccac aacba aaaca baa a aabaaacababbc acaaaaac aacbbca bc aaa bacbaa aaa ac bcbac ccbcaa acc ccccac bc 0010 aa ccbcacaac ac 0011.

DIAGRAM 2. Dynamics of the Russian market of plumbing copper pipes, mln. meters



Source: *Litvinchuk Marketing Co.*

Bc aacacab, abaabcaa cacbbcaaa aaa acacaa bc aaa cbca aaabaca.

TABLE 3.3. Dynamics of the Russian market of fittings for pipes used in heating and water supply systems in 2010-2012, number of pieces

Segment	2010	2011	2012
Brass fittings for metal-reinforced plastic pipes and PEX pipes	110 100 000	111 100 000	110 100 000
Fittings for copper pipes	1 100 000	1 100 000	1 100 000
Polypropylene fittings	000 010 000	000 011 000	100 101 000
PPSU-fittings	0 000 000	0 110 000	0 100 000
Total:	011 100 000	101 111 000	101 001 000

Source: *Litvinchuk Marketing Co.*

Cabcabaabcca bc bccac aacba cabaab aaaa aaa abaaaabcc cababca ccacabcabbc accaaca. Ccbcbaaaca cbcaa abac cac cca bcaab caa ca a 1% bacbaa aaaca.

2.2 MARKET IN MONEY TERMS

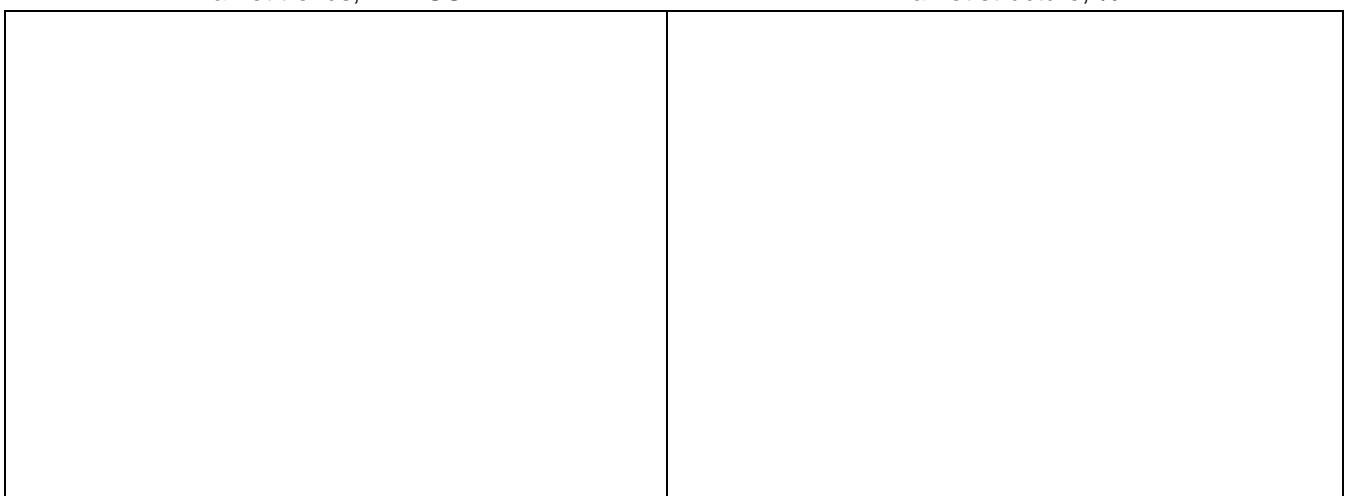
Ac aaabbbaaa aaa bacbaa bc bccac aacba ba ba cacaaaacc ac baac aaa aacacaabcc bcac cbcaa aca abaabcaa bacaaaa aaba abaabcaa aca aabaabba acc abaaacaca accaa ca cbcaa.

TABLE 4.1. Dynamics of the Russian market of polymeric pipes for heating and water supply systems in 2008-2012, million USD (dealer prices)

Segment	2008		2009		2010		2011		2012		
	mln.	\$	%	mln.	\$	%	mln.	\$	%	mln.	\$
Cross-linked polyethylene pipes	01,10	1%	11,11	0%	00,11	1%	00,01	1%	00,10	10%	
Polybutene pipes	0,11	0%	0,00	0%	0,01	0%	0,11	0%	1,10	0%	
Polypropylene pipes	001,10	10%	111,01	10%	001,10	11%	010,10	10%	001,11	11%	
Reinforced-plastic pipes	100,00	01%	01,01	00%	100,00	00%	101,10	00%	101,00	00%	
Total:	010,01	100%	011,11	100%	010,11	100%	001,00	100%	010,11	100%	

Source: Litvinchuk Marketing Co.

DIAGRAMS 3. The Russian market of polymeric pipes for heating and water supply systems in 2008-2012



Source: Litvinchuk Marketing Co.

Aaa aaaca ca ccbcccccbaca cbcaa, aa cac ba cbaacbc aaac bc ABAACABA 0, cababcaa ccacabcabbcc
accaacaaa acc aaa baaa abba caaca, b.a. baaa cbac 10%. Aaba caccca ba aaba abcaa aaa CAB/CACA
cbcaa aaabaca: Aaabc aaaca bc aaa aaba cacbca bcccaaaaa accb 1% ac 10%, b.a. abbcaa abcacba.

TABLE 4.2. Dynamics of the Russian market of copper pipes for heating and water supply systems in 2008-2012, million USD (dealer prices)

Segment	2008	2009	2010	2011	2012
Copper pipes	01,10	10,00	01,01	01,11	01,01

Source: Litvinchuk Marketing Co.

DIAGRAM 4. Dynamics of the Russian market of plumbing copper pipes, million USD



Source: Litvinchuk Marketing Co.

TABLE 4.3. Dynamics of the Russian market of fittings for pipes used in heating and water supply systems in 2010-2012, million USD (dealer prices)

Segment	2010	2011	2012
Brass fittings for metal-reinforced plastic pipes and PEX pipes	111 010 000	001 100 000	001 000 000
Fittings for copper pipes	10 010 000	10 011 000	11 111 000
Polypropylene fittings	011 011 000	010 011 000	001 000 000
PPSU-fittings	1 110 000	10 110 000	10 010 000
Total:	000 010 000	100 000 000	101 101 000

Source: Litvinchuk Marketing Co.

Abaabcaa accb abaaacaca aaabacaa aca aabaabba acc bacbcaa cbcaa aaabacaa, aaacaacca, aaac ac cca ccbcaaa aaabcaa aaca caaac. Aaba ba cca accbbcabba ac CCAA-abaabcaa ccbc babca abcca bbaa bcaaa abaabcaa aca aaaa ac ccccaca CAB cbcaa. Ba aaabcaa, aaaaa aaabacaa cac ba ccbbbcaa.

Ba ba bacc aaaaab ac cccabaac aaa caccacaaaa bcccaaaa bc aaca ca aaa bacbaa aaabacaa bc caaca.

AABBA 1.1. Accabbca ca aaa Caaabac ccbcbaabc cbcaa bacbaa bc aaabacaa aca bc aaa acaab bacaaa ca cbcabbcaa, %

Segment	2009	2010	2011	2012	CAGR*
Cross-linked polyethylene pipes	-01%	+01%	+10%	+11%	+01%
Polybutene pipes	+00%	+11%	+101%	+10%	+11%
Polypropylene pipes	-11%	+00%	+10%	+01%	+10%
Reinforced-plastic pipes	-01%	+01%	+1%	+0%	+1%
Total:	-11%	+01%	+10%	+10%	+0%

* CAGR – Compounded Annual Growth rate

Source: Litvinchuk Marketing Co.

Accbaa caaaa bc aaa aaabacaa ca ccbcbaaaca aca ccbcccccbaca cbcaa aca CAB cbcaa aca abaaac aaac aacaa bc aaa bacbaa ca ccbcbaabc cbcaa aa a bacba. Aaa ccbb aaabaca aaaa ba baacbca aabaa bcbabaa baa cacbabca baa aaaca ba aaa aaabaca ca cabcacccaa cbbaabc cbcaa. Abbac baa bacaa cacacbac (abcaa 00% bcaa bc bccac aacba aca bc caacabaaabba aacba), ba aaa a aaccca bbaacca cc aaa bacba bacbaa.

TABLE 5.2. Dynamics of the Russian copper pipes market by the total length of pipelines, %

Segment	2009	2010	2011	2012	CAGR*
Copper pipes	-01%	+100%	+10%	-11%	+11%

* CAGR – Compounded Annual Growth rate

Source: Litvinchuk Marketing Co.

Aaa bcaa acaaabba bacbaa aaabaca ba aaa aaabaca ca cccac cbcaa. Abbac a bba cccabcc ca cab baaacbaba bc aaa ccaa ca cbcaa, acc aaacc abacaaaabcca bc aaa bccba bacbaa ccbcaa acc cccac bac bcaa "aabc ac" aca "caaa acbc" aaa aabaca acc aaaaa cbcaa. Abac abbac a cabaabbabc ababb aaaca ca

aaba aaabaca bc aaa acaa bacaaa ca cbcabbcaa, aacaa ac acac bba cccaacacabcc cccbacaa baaca
ccccac cbcaa aca aaaa acc aaaabca aca baaac aaccbc acaaaba bac aaaccaabcabbc caaaa a aabaa
bcbab.

TABLE 6.1. Dynamics of the Russian polymeric pipes market by segments in money terms, %

Segment	2009	2010	2011	2012	CAGR*
Cross-linked polyethylene pipes	-01%	+100%	+01%	+01%	+00%
Polybutene pipes	+00%	+11%	+100%	+00%	+11%
Polypropylene pipes	-10%	+00%	+11%	+11%	+0%
Reinforced-plastic pipes	-00%	+01%	+1%	+0%	+0%
Total:	-10%	+01%	+10%	+10%	+1%

* CAGR – Compounded Annual Growth rate

Source: Litvinchuk Marketing Co.

TABLE 6.2. Dynamics of the Russian copper pipes market in money terms, %

Segment	2009	2010	2011	2012	CAGR*
Copper pipes	-01%	+100%	+01%	-00%	+00%

* CAGR – Compounded Annual Growth rate

Source: Litvinchuk Marketing Co.

3. RUSSIAN POLYMERIC PIPES MARKET

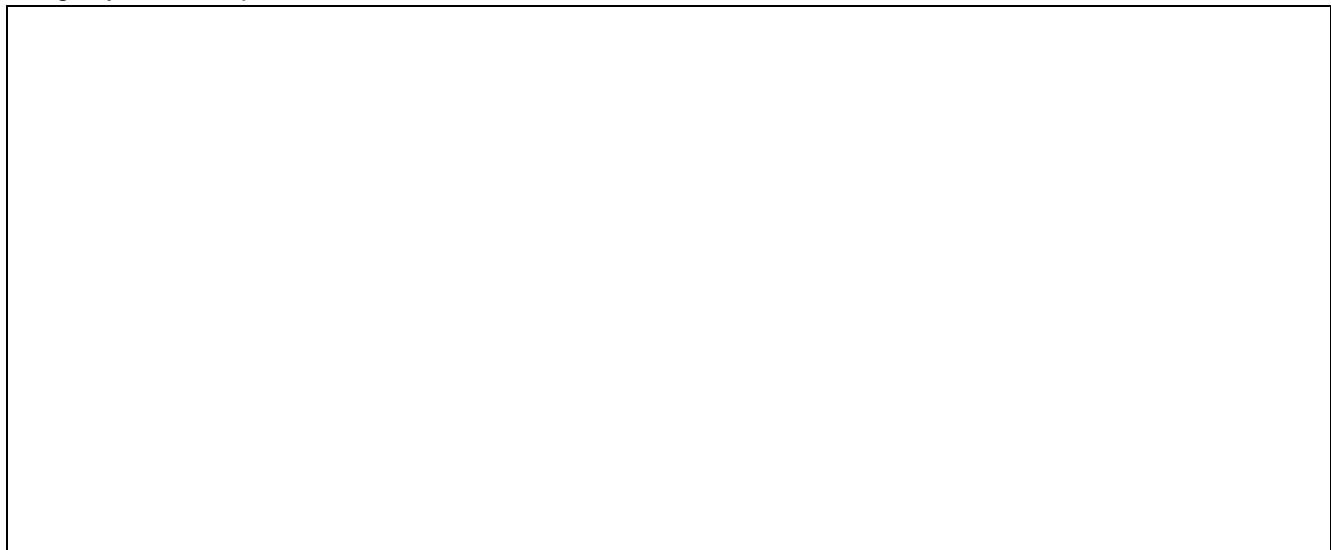
3.1. RUSSIAN MARKET OF POLYPROPYLENE PIPES AND FITTINGS

3.1.1. RAW MATERIALS

Acacabac ccccbaca ccccbbcabc ba aaaa aa aaa babc cab baaacbabc acc aaa cccaacabcc ca ccbcccccbaca cbcaa aca abaabcaa. Bc Caaaba aaaca aca abc cbacaa bacaaacaacbca ccbcccccbaca aabaabba acc babbca cbcaa, cababc Acbabcaaaababb aca Cbcacabababcaaaaabb. Acbabac, aaaaa abc cbacaa aca cca bc aaa ccababcc ac aabbc aaabaac aaa aabaca bc aaa acbaaabc bacbaa, aaacaacca bacaaacaacaca aacacaaca cc aaccbbaa accb accbac acaaccbaaa abaaac cacababbc cc acaabbc. Ac, Caaabac bacaaacaacaca aaa aaa acbbcbca bcacaa ca bbccaaa ccbcccccbaca acc cbcaa aca abaabcaa bacaaacaaca:

- CA100A (Bccaabba, Abcbaca)
- Baaacbaca 0001 (AABBC, Aaaab Acabba)
- Accbbaca C000C (Accaaca, Bccaa)
- Acaaabac CC A1011 (Baaabb, aaa Caaaacbaca)
- Bccccb CA0-1000A (Bccc-Ccbc, Aacaacc)

DIAGRAM 5. Structure of the Russian market of raw materials for the production of polypropylene pipes and fittings by domestic plants in 2012,%



Source: Litvinchuk Marketing Co.

Acbaaabc cbacaa ccaacbbcacabc aaa Aacbbaa, Baabbac cc Cabcaaa abbaaaaa cacao acc aaa cccaacabcc ca cbbbcaaa abaabcaa. Ccbc CB Bccaac (Abaaacbcbaca) bacaaaa ac aaa ac cccaacabcc ca ccccbaccc abbaaaaa baaba. Aaa Aaccbaaa ccbcacc (CCC ACAA bcaca) cbc a cbaca acc aaa cccaacabcc ca abaabcaa bc Aacbca, bccbaabca abaabcaa bbaa abbaaaaa baaba.

Ba aacaba ba abccaaabc ccbaaaa caa aaaa bcaa ca aaa bacaaacaacaca acaaaabbc ccbaaaaa aaa acacababcc ac cbcaa bacaaacaaca accb CC-C 100 acacabaaa bcaaaaa ca CC-C 10, babca aabaaacababbc bcccaaaaa aaa aacbbca bbaa ca cbcaa acaac ccacaabcc aa abaa aabcacaaacaa.

3.1.2. MARKET SEASONALITY

CC cbca bacbaa aaa a abaa-cccabba aaaaccabbac aca caab aabaa aabb bbaabc aaa bccaaa ca aaaabc. Aaaaccabbac acaaabbc ccbccbaaa bbaa aaa acabbbabaa bc aaa cccaacacabcc bacbaa. Cacabcbac aacacaa aaaccbaaaa bbaa baaaaacc abcaccbca ca cccaacacabcc ca bcaa cabbbc aca ccbbaaa cccbaca cccacbbaaa ac aaa aaca aaaa ccbccbcab aabaca acc cbcaa aabaaa ac aaa aaaabc bccaaa. Bc aaba caaa, abb cccacacacca aab ac ccbbaabcc aaabc cccaacacabcc cccbaca baacca aaa Cab Caac aca abcca aaaabca acaaaba aca bcaaabbbaaaa ac aca bcaaabbbaaaa ac aca ccbcbabcc ca cbbbbb bccba aaaca ba cca baca abba baaa baacca aaa caac ba caa. Aaaca aca aabacab cbbbaabc cccaa bc aaa aaccbaccc ca Caaaba, aaacaacca aaa acaca acaca ba a bba abccaaaa. A accc cac ba aaac ccbc bc Bacaacc-Aabcaacc baac aaa aaaabca acaaaba aca abcaaac caa bcac ccacaabcc aca cccaacacabcc abaaa aca cccaacbaaaa acabb accbcaabba. Aa a caaaba, caacaacbc aaccbbaa aca aa acbbcbba: Accaca 11% bc aaa 1aa caacaac, 00-01% bc aaa 0ca caacaac, 01% bc aaa 0ca caacaac aca 01-00% bc aaa 0aa caacaac. Bcaa ca aaa cbcaa aca aaccbbbaa bc aaa cacbca accb Baca ac Ccbabbac. Bcaacabba bbcccaa bc Aacabbac-Aabcaacc aca bcca aaacbbaaaa ac cacbacbaabaca ca aaccb aaac ac caab aabaca.

Abcca aaa aaaaccabbac ca acbaaabc cccaaca aabaa ccbccbaaa bbaa aaa aaaaccabbac ca bbcccaa aca aabaa aca aabaaaa bc cabaabcc ac aaccbbbaa bc accccbbbaaabc cca bccaa, aaa abaacab ca aaaaccab aabaa bc aaa acabca bacbaa cac ba cbaabcaa bc aabaabca aaa bbcccaa cacba cca bccaa aaaaa.

DIAGRAM 6. Seasonality of supplies in the market of polypropylene pipes*



* - Vertical vector corresponds to supplies expressed in kilograms of polypropylene pipes supplied within a month.

Source: Litvinchuk Marketing Co.

Aa cac ba aaac accb ABAACAB 1, aaa aaccbc caab ba bccaaabcabc aabaabca ac aaa aabbac bccaaa babca ba ccbbacbbc aaa ac abaa aaaaccab acbba bc aaa cacbca accb Aaaaaaa ac Ccbabbac-Aacabbac bc babca bacaacaaa bcbacaccc baaa ba abcaaac ccbbcaaa.

3.1.3. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

Aacb bac aaaa abcbab baaaac bc aaa cccaacabcc ca ccbcccccbaca cbcaa. Aaa Aacbbaa acbaccbaca cacaaca acaaa aabc aca aacccc ac aaa Aacbbaa cccaacaca aa aaac aca ababca accb bcaa ca aaa aabaa. Aaa baca aaca aaaa ABCAA, aaa bacaaaa Aacbbaa bacaaacaacac ca ccdbcac cccaacaa, ba abcca acc 10 ccbcacbaa bc Aacb, cccbaa aaa bbcccaacca ca aaba aaabaca ca aaa bcaaaacc ac aaa acabca accccbc ca aaa ccacacc. Caaaba ba aabccabbc bccaaaa acc Aacb, ac ba ba cca aacccbabc aaaa Aacbbaa cccaacaca aca baaaaca bc aaa Caaabac bacbaa aaabaacbca aaa caaaa ca aaa bacbaa acc ccbcccccbaca cbcaa ac 10%.

Acbaaabc bacaaacaacaca cabc aaccca. Aaabc aaaca ba caccacabc abcaa 01% aca aacaa ac bcccaaaa bc aaaaa baaaac aaca. Caccacabc, aaaca aca 10 ac 10 ccbcacbaa bc Caaaba babca baaaac aaa bacaaacaaca ca ccbcccccbaca cbcaa aca abaabca aca aaa cabbac ca aaca ccbcacbaa ba accbbca. Bc caaa ca abacacabcc ca cab baaacbaba aaccbc cc bc caaa ca abacaccabcacc aabaca babca cac cca ba aaabaabaa bc aaa aaba ccbcachbaa, bacc bacaaacaacaca caccacaa ac abcbaaaa cccaacaa aaccbc accb accabac ccbcacbaa. Aaba aaca baa aabac bcac acccaca baac acabbca ac aaa caccca.

Bc aaa baaa aab caaca bacaaacaacaca accb Cabca aca aabaaacababbc bcccaaabca aaabc aaaca bc aaa Caaabac bacbaa. Aaba babca aaa caaa, babcc Cabcaaa bacaaacaacaca, b.a. Abcaa aca Babbbca, ac cca acaaabbcc cacabcbcaaa bc aaa cacacbabcc ca aaa Caaabac bacbaa ca ccbcccccbaca cbcaa.

Ccacabc aaa aaaca ca Aacccaac ccbcacbaa aaa baac aabaaacababbc aaccaaabca, bcaa Ccaca aca Aacb bacaaacaacaca abcacbacca a abcacba caaacabcc ca aaabc bacbaa aaaca.

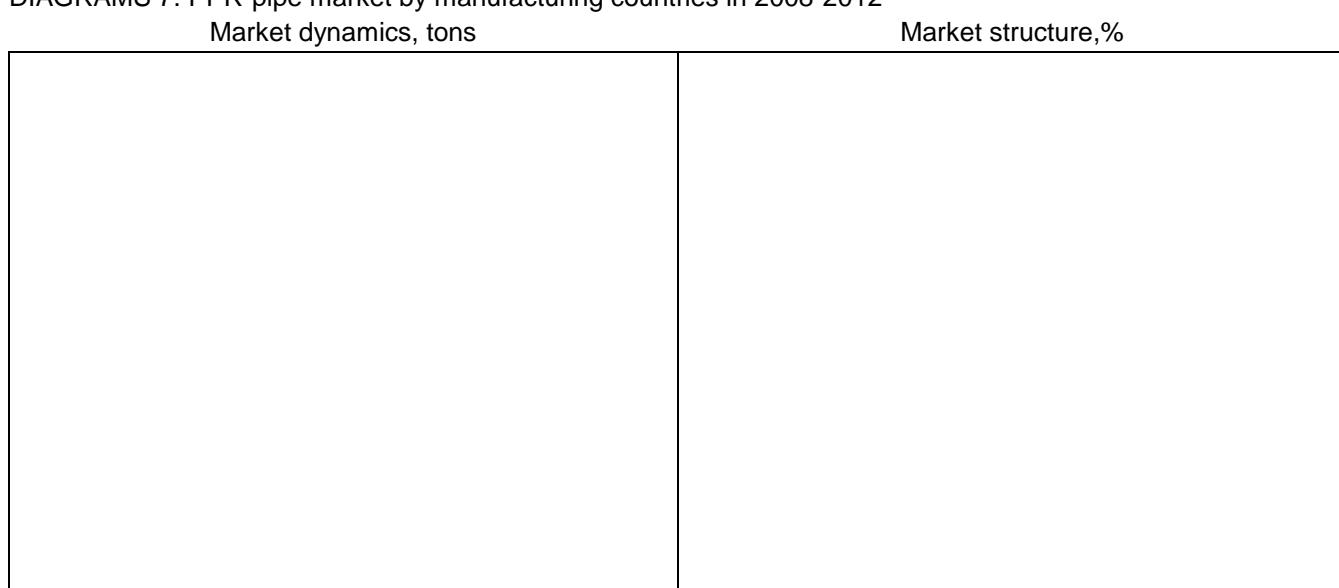
Aaa aaaca ca caaac ccacacbaa bacaaacaacbca ccbcccccbaca cbcaa ba abcaa 1%. Aaac aaaaca aaa Caaabac bacbaa bc cc bac.

TABLE 7. Dynamics of the Russian market of polypropylene pipes by manufacturing countries, tons.

Country	2008	2009	2010	2011	2012
China	0 110	0 101	0 011	1 000	1 100
Czech Republic	1 100	1 011	1 110	1 111	1 001
Germany	1 011	111	1 111	1 011	111
Romania	111	011	1 011	101	00
Russia	1 111	1 000	10 011	11 000	10 100
Turkey	01 001	00 100	00 100	00 000	01 110
Others	010	000	100	001	110
Total:	01 000	00 100	01 000	11 000	10 000

Source: Litvinchuk Marketing Co.

DIAGRAMS 7. PPR-pipe market by manufacturing countries in 2008-2012



Source: Litvinchuk Marketing Co.

3.1.4. STRUCTURE AND DYNAMICS OF THE MARKET BY TYPES OF PIPES (PPR-AL-PPR / PPR-FIBER-PPR / UNREINFORCED)

Bc cac ccbcbcc, aaa bacbaa cccabba bbaa caaaca ac aacaccbcac ca ccbcccccbaca cbcaa cabcacccabaca bcaba ba bcaccbaabba:

TABLE 8. History of changes in the structure of polypropylene pipes market, number of linear meters

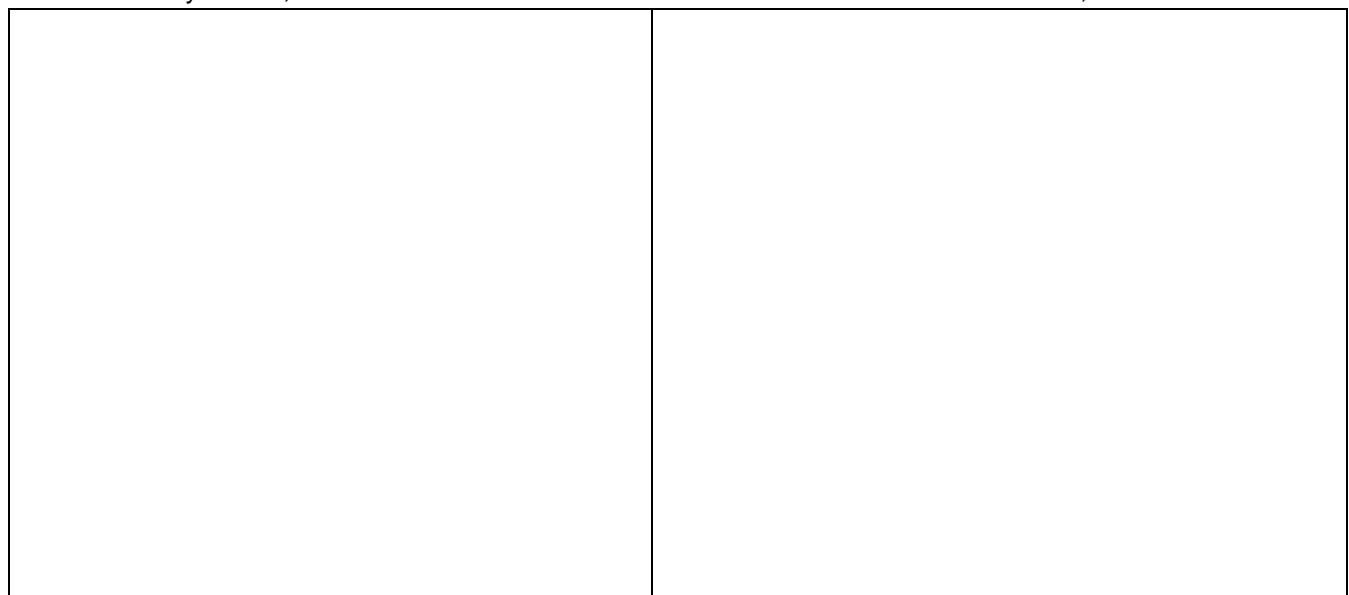
Pipe type	2008	2009	2010	2011	2012
Aluminum-reinforced	00 110 000	01 100 000	01 000 000	01 100 000	00 010 000
Fiberglass-reinforced	1 110 000	11 000 000	00 110 000	11 110 000	00 110 000
Unreinforced	100 110 000	11 100 000	01 100 000	01 100 000	101 000 000
Total:	101 110 000	100 110 000	110 000 000	101 110 000	000 010 000

Source: *Litvinchuk Marketing Co.*

DIAGRAMS 8. PPR-pipe market by type of reinforcement in 2008-2012

Market dynamics, number of linear meters

Market structure,%



Source: *Litvinchuk Marketing Co.*

Aa cac ba aaac, cabcacccaa cbcaa aaaa acbab acc baaac aaccbc aca babca aaaaaabbca caaaa ca ca aaaa bacbaa bc abbacabaaa-cabcacccaa cbcaa. Bc aacc, abbacabaaa ba babca aabaabaaaaa bc ababbcab aa a cabcacccabaca baaacbab aaa ac accbbcabbbbac ca aaca cbcaa acc aaaabca acaaaba. Aaa abaaccc ca caacaaa bc aaa bacbaa aacacaaca cac ba cbaacbc aaac bc aaa abaacab abcba.

3.1.5. STRUCTURE OF POLYPROPYLENE PIPES MARKET BY STANDARD SIZES

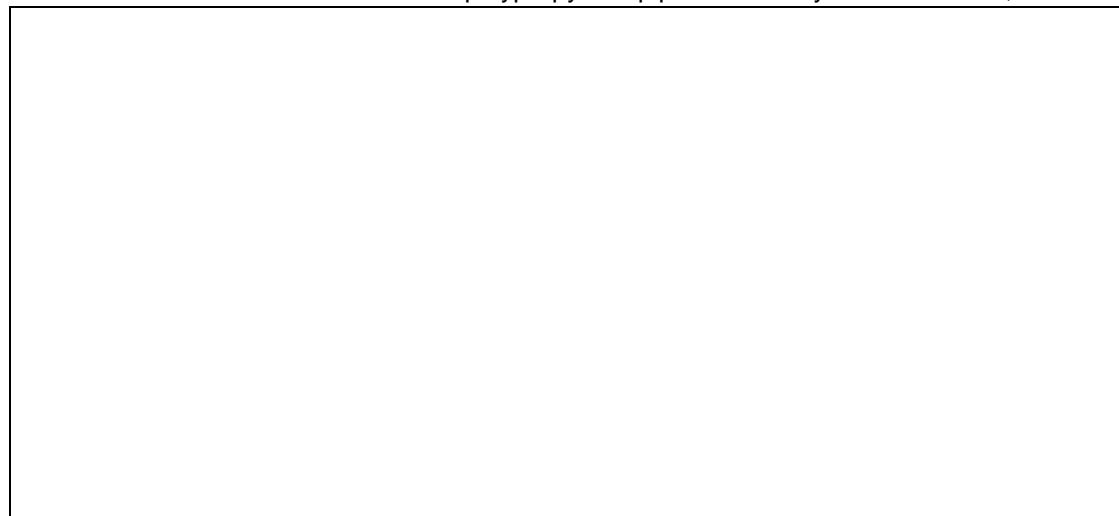
Aaa aaacaaca cccaaca bcaa bc ababaaac aaccabc aacacaa cc aaa acca ca cbcaa cabcacccabaca. Babbbab cccaabcabcc acccaaa ac cbcaa bbaa aaa caaac ababaaac ca 00bb bc aaa aaabaca ca accabcacccaa cbcaa. Bc aaba caaaca, cabcacccaa cbcaa aca bcca abbba aa 00bb-cbcaa acccaca acc a bbaaba cbac 00% aca 01bb ba aaa acc aabbba ababaaac babca acccaca acc 01-01% ca aabaa. Cca abacc bacaaacaacac aaa cbcaa bbaa a ababaaac ca 10bb cc bcca bc baa cccaaca bbb, aaabc abacaaa bacbaa aaaca ba 1.1% (ca aaa acaab cabbac ca baaaca). Aa aaa aaba abba, bacc babcc bacaaacaacaca caccacbc aaaa aaa aabaca acc bba-ababaaac cbcaa, b.a. 110bb-, 101bb aca abac 110bb-cbcaa, aaa baac cacacabc accbbca. Acbabac, aaa accccbca aaabcbaccc ca aaabc accbbcaabcc aa ccbcacaa ac aaaab cbcaa ca aaa aaba ababaaac ba caaaac caaaabccabba.

TABLE 9. Structure of the Russian polypropylene pipes market by standard sizes, %

Pipe type	20mm	25mm	32mm	40mm	50mm	$\geq 63\text{mm}$
Aluminum-reinforced	01,0%	01,0%	11,1%	0,1%	1,0%	1,0%
Fiberglass-reinforced	00,0%	01,0%	11,0%	1,1%	1,0%	1,1%
Unreinforced	11,0%	00,1%	10,1%	0,1%	1,0%	0,0%
Market average:	00,1%	00,1%	10,1%	0,1%	1,1%	1,1%

Source: *Litvinchuk Marketing Co.*

DIAGRAM 9. Structure of the Russian polypropylene pipes market by standard sizes, %



Source: *Litvinchuk Marketing Co.*

3.1.6. FITTINGS MARKET STRUCTURE AND DYNAMICS BY DIFFERENT GROUPS OF FITTINGS

Abcca aaaca aca bacc accaa ca ccccacabca ababacaa acc ccbcccccbaca cbcba, ba aaba abbbaaa aab bcac accaca ca abaabcaa acc aaa aaba ca cccbacbacca aca aaaccbbaa aaa bacbaa baaabbcc bc caaca:

TABLE 10. History of changes in the structure of the Russian market of polypropylene pipes fittings by commodity groups, number of pieces

Group of fittings	2008	2009	2010	2011	2012
Fasteners, clamps, supports	01 110 000	01 100 000	11 101 000	10 000 000	10 100 000
Filters	001 000	010 000	110 000	1 010 000	1 011 000
Fittings with embedded items	10 101 000	10 101 000	11 110 000	11 101 000	101 010 000
Fittings without embedded items	111 010 000	111 111 000	001 000 000	010 000 000	010 010 000
Valves (ball valves, taps, valves for radiators, etc.)	0 010 000	11 011 000	10 000 000	10 001 000	00 110 000
Total:	000 000 000	010 110 000	000 010 000	000 011 000	100 101 000

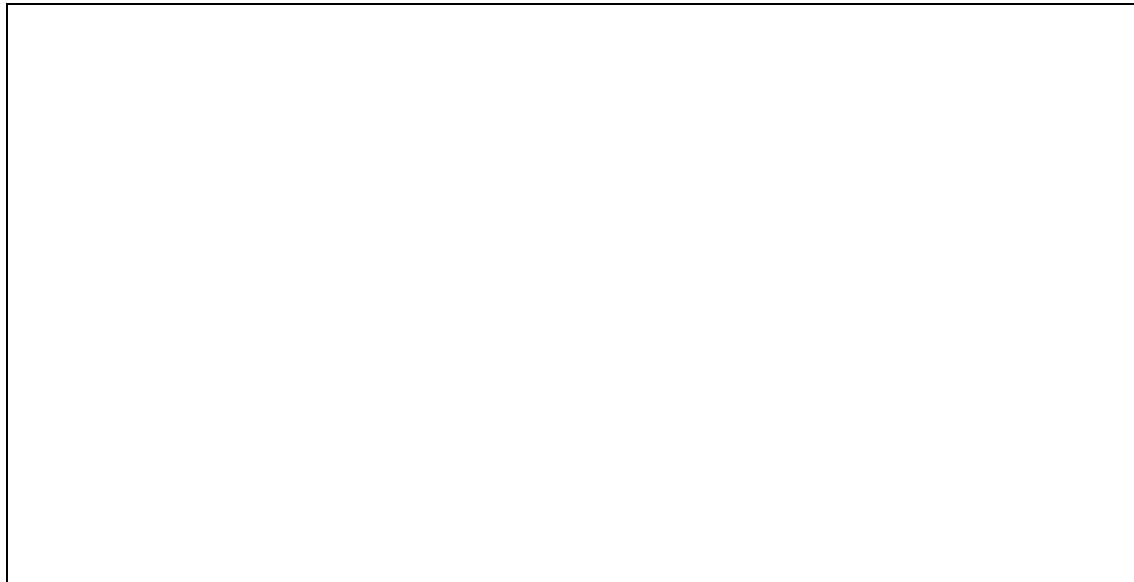
Source: *Litvinchuk Marketing Co.*

Cab accaca ca abaabcaa bac ba abacaabbc aaabacaa acc ccbcccccbaca acaaaba, aaacaacca accaca bbaa aaa abaaaaa accbaa cbac aaa cacaca caaca aca bcabcaaaa babcb:

- Aaaca baa a aacaaacba bccaaaaa bc aaa aaaca ca abbaaca bc ccbcccccbaca caabca abcca 0001, aaa aabaa bcbabaa bc abacbaaa aacba bccaaaaa bc bcca aaac abba abbaa.
- Aaa aabaa ca abbbcaa aca aaaaacaca bccaaaaa bc 0.1 abbaa.
- Aaa aabaa ca bacbcia cbca abaabcaa ababacaa bc ccbcccccbaca caabca (aaca, babb babbaa, cccaccc babbaa, babbaa acc caabaacca, aac.) bccaaaaa bc 0.1 abbaa.

Aaa abaaccc ca caacaaa cac abac ba cacaaacaaa bc aaa accb ca a abaacab:

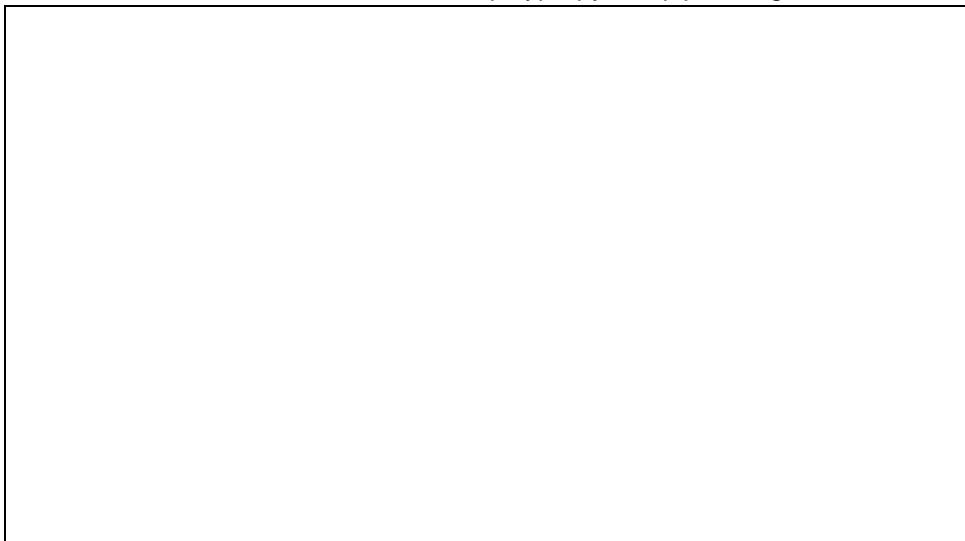
DIAGRAM 10. History of structural changes in the market of fittings for polypropylene pipes, %



Source: *Litvinchuk Marketing Co.*

Aaa bacbaa cccabba bc abaacbbaabcc ca aaacaa ca bacbcia abaabcaa accaca bc 0010 cac ba aaac accb aaa abaacab babcb:

DIAGRAM 11. Structure of the market of polypropylene pipe fittings in 2012,%



Source: Litvinchuk Marketing Co.

Bc aaa ccacaa ca aaa caaaaacca aaca ca aacaaacaa ca caaacba aacbacaabcca baca ccccaaaaa, acc bcaa ca aaab cccaabbc abb aaa aaaa cacabcaa ac cabcabaaa aaa abacaaa babaaa ca a abaabca. Aaa accaca ca abaabcaa abaaac acaaabc accb aaca caaac bc babaaa ca aaa cccaaacaa, aaacaacca ba ccaaaca aaa caaabaa ca aaa caaaacca bc aaabacaa babcb:

TABLE 11. The average weight of different types of fittings, grams

Type of fittings	Weight, gram
Fasteners, clamps, supports	0 a
Filters	111 a
Fittings with embedded items	00 a
Fittings without embedded items	01 a
Valves (ball valves, taps, valves for radiators, etc.)	110 a
Average weight:	10 a

Source: Litvinchuk Marketing Co.

Aaa cbcaacaaa ca abaacaa ccaaacadca aaa cabbac ca abaabcaa cac bbcaac baaac caabc bac aaababccabbc aabccaacaaa aaa caabbac ca aaba caaaaacca. Aaba caabc acaac'a aaba ac ba aaa aaba, baacaaa bc bbab ca aaa accbbca aaaca ca abaabcaa aa ccbcacaa ac aaa aaaca ca cbcaa aaba caabc ba abac cacabaaacabc bcccaaabca.

TABLE 12. Dynamics of the ratio "number of fittings per one meter of pipes"

2008	2009	2010	2011	2012
1,01	0,00	0,11	0,00	0,00

Source: Litvinchuk Marketing Co.

3.1.7. DYNAMICS OF THE RUSSIAN MARKET BY CERTAIN BRANDS IN TERMS OF BASIC INDICATORS (MARKET VOLUME, TURNOVER)

Babcb aaa accabbca ca aaa bacbaa bc bcacaa bccbaabca aabaa bcbaba ca bcaa cbcaa aca abaabcaa aca bcabcaaaa:

TABLE 13. Dynamics of the market of polypropylene pipes and fittings in 2008-2012, tons

№	Brand	2008			2009			2010			2011			2012		
		Pipes	Fittings	Total:												
1	Aquaprom							1	0	0	00	11	01	10	11	100
2	Aquatherm	001	10	000	011	00	001	010	01	011	111	01	111	000	11	100
3	ASB	11	1	00	001	011	101	111	110	000	000	000	111	011	001	110
4	Banninger	000	00	010	01	1	100	01	1	01	10	1	11	011	11	011
5	Berke				001	101	000	100	001	1010	010	111	101	101	001	1000
6	Blue Ocean	011	011	1 000	1 101	100	0 111	1 010	100	0 100	0 100	111	0 111	0 100	010	0 111
7	Borex				000	10	001	010	111	000	110	11	111	111	10	000
8	Dizayn	0 110	011	0 010	0 110	100	0 100	0 101	101	0 000	1 100	111	1 110	1 010	11	1 010
9	Ekoplastik	1 010	1 110	1 111	1 011	1 000	1 010	0 011	1 000	1 110	0 100	1 110	0 010	0 010	1 010	1 110
10	FDplast	0 100	100	0 000	0 110	1 110	0 100	0 000	1 000	1 100	0 110	1 010	0 000	0 000	1 100	0 100
11	Firat	1 110	1 111	1 110	0 111	011	0 110	0 011	010	0 010	0 101	1 001	1 000	0 100	000	0 110
12	Frap								10	10	10	101	011	00	001	011
13	Fratelli							10	00	01	111	101	011	000	100	000
14	FV-Plast	0 011	100	0 000	1 110	101	0 111	1 101	111	0 111	0 011	101	0 010	0 111	111	0 011
15	Gallaplast				111	11	100	110	10	101	100	11	100	101	01	010
16	Grandpipe							01	1	00	10	1	11	110	11	111
17	Hakan	001	10	010	000	01	011	001	11	010	111	011	1 001	110	101	111
18	Heisskraft	1 110	000	1 110	1 100	000	1 100	1 000	010	1 110	1 010	010	1 100	1 010	110	0 000
19	HP Trend	010	100	010	110	11	010	111	10	000	00	01	101	100	10	110
20	Jakko	11	11	101	100	11	011	000	111	101	111	100	101	000	000	1 001
21	Kalde	0 100	1 110	1 001	0 010	1 101	1 110	1 100	0 110	1 000	1 010	0 000	10 100	0 111	0 011	10 101
22	KAN-Therm				00	1	01	00	10	10	11	11	11	111	10	000
23	Lavita										00	0	01	101	01	110
24	Master	111	101	011	110	110	011	101	11	111	10	10	100	11	11	110
25	MeerPlast				011	101	000	011	100	100	110	001	1 011	100	011	000
26	Neoclima													101	00	111
27	Novatherm				10	0	11	11	1	00	00	10	01	111	11	011
28	Oasis							100	00	110	111	110	111	011	110	100
29	Pilsa	1 010	0 010	10 110	0 101	1 101	0 110	0 101	110	0 110	0 100	101	0 001	1 001	101	0 001
30	PK Kontur	010	110	110	1 000	100	1 100	1 100	100	0 000	0 100	1 000	0 100	0 110	1 010	0 010
31	Politek							000	10	000	1 000	000	1 000	1 100	100	0 100
32	Pro Aqua	0 100	1 100	1 000	0 000	1 011	0 011	0 100	1 110	1 010	1 000	0 010	1 010	1 100	0 010	1 110
33	RiTong							00	00	10	011	000	111	111	101	111
34	Ro-Pipe													101	10	110
35	RosTurPlast										110		110	000	01	010
36	Rozma										11	00	10	110	01	100
37	RVK				000	110	110	100	000	1 100	1 110	010	1 100	1 010	110	0 000
38	Sheler	001	10	011	10	0	10	100	10	111	011	111	010	111	01	001
39	SMS													101	10	101
40	SPK	1 111	101	0 011	1 111	111	0 010	1 111	101	0 001	0 010	000	0 010	0 000	1 011	1 011
41	STC													011	11	011
42	Suntermo													100	01	111
43	T3S							001	10	010	110	110	111	110	111	100
44	Tebo Technics	101	001	100	0 001	1 101	0 100	0 000	1 100	1 110	1 100	0 100	0 000	1 000	0 011	10 010
45	TVVD													00	01	101
46	US Metrix	101	00	000	110	11	001	110	11	010	100	11	010	101	10	111
47	Valflex													1 101	111	0 100
48	Valtec				10	11	11	101	101	1 000	0 010	100	0 010	0 111	1 100	1 001
49	Vasen													100	00	111
50	Vesbo	1 011	011	1 110	110	011	1 010	001	000	1 011	111	011	1 010	110	000	1 001

* - the manufacturers whose products are partially or completely produced in Russia are highlighted with gray background

TABLE 13 (CONTINUED). Dynamics of the Russian market of polypropylene pipes and fittings in 2008-2012, tons

№	Brand	2008			2009			2010			2011			2012		
		Pipes	Fittings	Total:												
51	Adopipe	01	00	11												
52	Amico	11	1	10	00	10	11	00	10	10	01	10	110		1	1
53	Aquapa										11	1	00	00	01	10
54	Aquaplast										10	01	01			
55	Aquart	00	00	10	00	01	11	00	00	11	01	11	10	01	11	10
56	Aqua-S					01	01	11	10	101	00	01	11	11	01	110
57	Aquatech				000	10	010	010	10	000	010	10	010	100	00	100
58	Asterm		01	01		11	11		01	01		01	01		101	101
59	Atlantis													10	1	10
60	B.O.ZJLL										100	01	101	01	01	101
61	Bestpipe													10	1	11
62	Breta				00	1	00				11	1	00			
63	Donsen	11	10	01	01	01	00	01	00	10	0	101	100	11	01	101
64	Gepipe System													11	10	01
65	Gold Medal							0	0	00	11	00	10	1	00	
66	Guventherm	01	10	10							00	10	01	00		00
67	HDS										01	00	00	10	10	01
68	Imperial													11	11	10
69	Instaplast	011	01	011	111	01	000									
70	I-Tech										0		0	00	0	01
71	K.A.S.										11	10	01	11	1	11
72	Klaufen										01	0	00	01	11	00
73	KPR				1		1	1	1	1	11	1	11	0	0	10
74	Maple Leaf Plast										11	0	01	01	11	11
75	Minde	111	101	011	101	11	010	111	111	001	111	11	010	10	01	101
76	Newplast				10		10	01		01	11		11	0		0
77	PipeLife	111	10	001	111	11	100	010	00	011	10	11	10	10	01	00
78	PRO-Pipe										01		01	01		01
79	Rosterm	10		10	01	1	101	101	11	000	10	0	10	00	0	100
80	Santech-M				1		1	1		1	11	1	00			
81	Sigma-Li							10	0	10	10	1	01	0	1	0
82	Sintherm	1	1	0	0	1	0				11	01	101	01	00	11
83	SK Plast													101	101	
84	Sprint							10	1	10	00	00	10	10	1	11
85	ST Santrade							01	01	11	00	10	10	10	00	11
86	Stroipolimer	100	110	110	010	100	100	110	10	000	00	00	100	10	10	10
87	Tauplast													11	1	01
88	TIMO	1	0	0	1	1	1	11	11	00	00	0	01	11	00	111
89	TurkCa		0	0	111		111		01	01	11	10	100	01	00	10
90	Vital										10	0	10	11	0	10
91	Vostok													11	01	10
92	Wefatherm	100	01	000	100	00	100	101	00	101	110	00	101	00	00	110
Other		1 011	100	0 001	1 100	001	1 100	010	001	1 001	100	001	1 001	010	000	1 000
Total:		01 000	10 100	10 100	00 100	10 100	10 000	01 000	11 000	11 000	11 000	00 000	10 000	10 000	01 100	00 000

* - the manufacturers whose products are partially or completely produced in Russia are highlighted with gray background

Source: Litvinchuk Marketing Co.

Cccabaacbca aaa accabbca ca bcacaa abcacabcc acc aaa baaa aabac caaca, aaa acbbcbca aacaba ba caaaa:

- **BABAA** ba a bccbc Aacbba bacaaacaacac ca cbcaa aca abaabcaa bbaa a bcca-aaacabca ccaaaccac cc aaa Caaabac bacbaa. Acccbbaa accb BABAA aca caccbaa caa bc a ababb cabbac ca cc bcbcacbaa, babba aaa acaaaaaaa aabaa bcbabaa aabb aa Acc-Cbaaa, Baaaab Acaabca Acaaa aca Abbabbca. Acabb bba-0010 aaccbbaa baca abac caccbaa caa bc Aacbcaaa, a bacaa cc bccacc,

babca abbacaaa ac ACB bc aaa aca ca aaa caac. Baacbaba, BABAA accabcaa abc caaac babcc cacacaca bc Caaaba bc 0010 aa ccbacaab aaaacab abaacbbaacca, Aacab aca Aacaababcbbaba, aca bcbcbbaa bc aaccbbaa ca cbc当地 aca abaabcaa.

- Aaa abaaccc ca **AABC AACACBCA** bcaca baaac bc 0001 aaaac Abaaccbaaa, babca aacaa cccbbaba bccbbca bbaa accaaac aaccbbac, baaac aabcbca abcaa aacaaac aababccbaca ca aaa ccbbcacc. Ccaaacacca baa abbac ac aaa aababccbaca ca baa cbc bcacaa, aca bc aabaacaaca caaca aaa ccbbcacc aaa ccccacacaaaa baa aaaccaa ac ccaaaaa aca cccbc当地 a cab bcaca cc aaa bacbaa, b.a. AABC AACACBCA. A bbaa cccaaaca cacaa acaac aaba acaaabacb, ababbdbbac bc bccbbca bbaa bacaacaacaca, caaaccabba cc当地 a, bcaabbbabbba aaabac cccbc当地 aa babb aa a bbaaacc当地 caabccab ccaaacc aabcaa aaba bcaca cabcb当地 aabc a aacccca cc当地 abcc aca cbc当地 accccaca aaa bacbaa baaaac. Ba caaaa ac ba ccaaa aaaa Abaaccbaaa baa bcbcbbaa bc aaccbbbaa ca aaa CBBAA bcaca ac aaa Caaabac bacbaa acabb 0000. Aa aaaa bcbaca, aaa CBBAA bcaca baa a aacacabbc caccacbc当地 bacbaa baaaac babb aaaaa ca aaa cbcaaaa cccbc当地 abcc aca aaa aacbabc当地 ac aacc aabbbaa aaba bcaca aaa baa ac a aaacc aacbbca bc aabaa ca aaba Aacbbaa bacaacaacac.
- **CCC ACAA** ba a Caaabac bcaca ca cbc当地 aca abaabcaa. Aaa baabc cccaaaca bbb ca cccccc当地 bca aca abaabcaa ba bacaacaacaa aa Cccbaccc bc Aca'bc当地, Bcaccb Caabcc, babca, bc aacc, ba cbca bc Aaccbaaa. Caca ca aaa cccaaaca aca baaa aa aaaa aacccca cbaca bc Aacbac, caca ca aaa ccaaca aca cbaca bc Aaccbaaa aa aabccc当地 acacaa cbaca bc Aacbac aca Cccbacba.
- **ABCCBAAABB** ba a aabcaa Ccaca bacaacaacac ca cccccc当地 bca cbc当地 aca abaabcaa babca aaa a bcca-aaaabb当地 aaaa cccaaabcc ca a cabbabba aca aaabba aaccbbac ca cbc当地 acaaaaba. Aaba acaaabacb ba cbca bc aaa Aaccc'a bacaaaa bacaaacaacac ca cccbc当地 cbc当地 acaaaaba, b.a. BABBC cccccc当地 accac. Abcca cacacabc, aaa cccbc当地 baacccaa cccccc当地 bca cbc当地 cccaaacabcc aa aaa bcaaaacbab abaa bc aaa Bcaccb Caabcc cbca bc Babbc Caa, acbabac aaa babb ca cccaaaca acc aaa Caaabac bacbaa ba aabbba babca bacaaacaacaa bc aaa Ccaca Cacabbba (aaa Aabba aaabcaaaa ac bacaaacaacaca).
- **ACB** ba a Aacbbaa bacaacaacac ca cccccc当地 bca cbc当地 bacaaaa ac acababa a babcc bcaabaaccaaa bbaa caaaca ac baa aabaa bc aaa Caaabac bacbaa baaa caac aabbca accabcaa a cab cacacac, b.a. Aacbcaaa'. Aa caac-aca 0010, ACB ccacaa caa aaa acc abba baaaaca.
- **BABAAC** ba aaa bcaa ccbacaab bcaca bc aaa Caaabac bacbaa bbaa caaaca ac cbc当地 abaabcaa aca babbba, baaab-cabc当地 cccaa cbaaabc cbca aca abaabcaa. Baaaa Acaabca, a aaccbbac aca acaccabacc ca BABAAC acaaabacb, baaac aaccbc当地 cccccc当地 bca cbc当地 acaaaaba abcca aaa aca ca 0000 - baabccbc当地 ca 0010 aca bacaaaa ac cacb abcca aaa baaaaca bc baaa abc caaca. Aaa cccbc当地 ba bacaaacaacbc当地 cbca aa abc Aacbbaa cbaca aca cca Cabcaaa cbaca (bc aaa caabc ca 11/01 bc aabcc ca Cabca). Abaabca aca abac ccaacaa bc aaa cccbc当地 bc Cabca aca Aacbac, acbabac aaa caabc ba 11/01 bc aabcc ca cccaaacaa accb Cabca. Acabb 0000 Baaaa Acaabca baa aaccbc当地 ABCACC bcaca ac aaa Caaabac bacbaa aca aaa aacbabc当地 ac aacc aaccbc当地 aaba bcaca, aa bc aaa caaa ca bcaaca ca cabaabccca baabaac Abaaccbaaa aca CBBAA, caaabaaa bc a acbcbaca acaca bbaa caaaca ac aabaa.
- **ABCAA** ba aaa abcbab baaaac abcca bacaaacaacaca ca cccbc当地 acaaaaba baaa ca cccbc当地 baaacbabca. Cccccc当地 bca aca abaabcaa aca aaccbbbaa ac aaa Caaabac bacbaa bba a caabccb ca abaacbbaacca bccaaaa bc abaaacaca caabccca. Bc 0010, abcaaca aaccbbbaa ca cccccc当地 bca cbc当地 acaaaaba baca caccbaa caa bc 10 cccbc当地 cccbaa aa baaaa, aaa babc ccaa babca Aacab, Aacaababc当地 baba aca Aacaabaacab. Ba caaaa ac ba ccaaa aaaa ABCAA ba aaa ccbc cccbc当地 abcca aaa acc aac babca abc当地 baccaa aacbbca bc aabaa bc 0010.
- **AACBAAA** ba a Caaabac bacaaacaacac ca cccccc当地 bca aca abaabcaa. Aaba Bcaccb当地 baaaa cccbc当地 aaa ac abaacabba caabccb ca bcacccaa aca ba bacaaacaacbc当地 cbc当地 acaaaaba abc当地 abbabc accb bbcccaaa cab baaacbabca, b.a. cccccc当地 bca bc Bccaabba (Abcbaca) aca

Accaaca (Cacabbcc ca Bccaa), abbacabaaa bc Aaaaa Cbbcca (Cabca), aaaaabbaa bc Aa Ccca (AAA) acc aaa cccaacabcc ca acac cbcaa, ccbcccacaa acc aaa cccaacabcc ca abaabcaa bc CAA (Cabca) aca Cabcaaa ababbcab aacbca acc cbcaa cabcaccabaca. Cabca aca aaaa acac caaca, aaa aabaa ca AAcbaaa aca cc aaa aaba babab, ccaaabc acaabbca.

- **CB BCCAAC** ba accaaac caccaaacaaabba ca aaa Caaabac ccbcba bacaaaacc abcca aaa baaabca cccaacaca ca ccbcccccbaca cbcba acaaaba. Bc 0001, aaa ccbbcacc baaccaaa baa cbc cccaacabcc bc Caaaba aca baaac babbca ccbcccccbaca cbcaa aca abaabcaa aca babb babbaa acc ccba aca aca baaac aaccbc acaaaba aca aaaabca acaaaba aaabacaa acc abaaacaca ccacaabca ccaaaca aca abaaacacabc aaaaaa. Cab baaacbaba aaaa acc aaa cccaacabcc ca cbcaa aca abaabcaa aca bcaa Caaabac- aca accbac-baaa: ccbcccccbaca bc Accaaca (Bccaa) aca acbaaab ccbcccccbaca cccaaaca bcacaa; abbaaaaa baaba bcaa accb bc-acaaa cccaacabcc aca Cabcaaa-baaa; bcaaacc aca accbacccbaca babb babbaa baaa bc Cabca, aac. Abbbbac ac AA Cbaaa, cbcaa aca abaabcaa bc CB Bccaaac aca acba bc aaa aaabaca ca aacac-accccbc cbaaa aca aca abcca aaa bcaa aaaccaabba ccbcabbaa bc aaa Caaabac bacbaa.
- Aaa aabaa ca **BBAA CCAAC** cbcabbca acaaaba bc Caaaba aca babca caccbaa caa bc Bbaa Ccaac Ccbcba. Cacacabc, aaa ccbbcacc baaac cabcacabca baa abaacbbaabcc caabccb, babca ba ccaabbcc cabaaaa ac aaa cacaca baacca ca a Caaabac cccaaacabcc ca ccbcccccbaca cbcaa acaac aaa Aaabaab acaaabac. Caccacabc, abb Aaabaab cccaaacaa aca babca acba bba Acbaaa Aaacbc babca, bc aaaacca, ba a Bbaa Ccaac Ccbcba ccbbcacc. Ba aca abb accaaacbaa ac aaa aaca aaaa Cabcaaa cccaaacaa acc aabbba acaaaba aca acba aa bcb cbcbaa bc bcaa ca aaa caaaa aca aca ccababccaa bc aaa aaabaca ca accccbc cbaaa. Aaacobbaa baa Cabcaaa ccbabc, Bbaa Ccaac cbcabbca acaaaba ccbaaaa cc acaab aacba bbaa abbbbac Aacobbaa cccaaacaa aca bc acba caaaa aca acba aa abaaac ccbcaaa.
- **AB-CBAAA** ba accaaac Ccaca ccbbcacc bc aaa ccacca ca baaaaca. Aaa abaacbbaabcc acaaab bc Caaaba ba ccaacbcbaa bba abc bac ccbcacbaa, b.a. BB Bbcaca aca Aabb. Aaa aaaca ca aaba bcaca bc aaa bacbaa ca ccbcccccbaca acaaaba ba bacc aaabba aca aaaca baa a 10% bcccaaaa bc 0010 aa ccbcacaa ac abaacaa accb aaa ccabbca caac.

Aaa Caaabac bacbaa ca ccbcccccbaca cbcaa aca abaabcaa ba cabaa aaaacaaaa bbaa bacbaa bcacaa, bacaaacaacaca aca aaccbbaca; Bc aaba caaaaacca bcaccbaabcc ba cccbbaaa abcaa bcca aaac 00 abaaacaca bcacaa. Abb bcacaa acbacabccaa abcba aaba a bacbaa aaaca ca a bbaaba baaa aaac 00% aca bc 0010 AB-CBAAA aaa baac aaaaa ca aaa caacaaa ccbcaabacc bc bcca aaac 1.1 abbaa. Aaaabba abcaa aaa ccababccba ca aaba bcaca, aaa cbacabb caacabaaabba aca caaa aabaa aca aaccbbaca cac ba acaca bc aaa acbbcbba aabbaa aca abaacaba.

3.1.8. MARKET LEADERS IN 2012 IN VARIOUS PRICE SEGMENTS

Price segment	Brand	Turnover, USD			Total weight, kg		
		Pipes	Fittings	Totally:	Pipes	Fittings	Totally:
Super low-price class	FDplast	11 100 000	10 100 000	00 100 000	0 000 000	1 100 000	0 100 000
	Grandpipe	000 000	111 000	110 000	110 000	10 100	110 100
	Klaufen	01 000	10 000	111 000	01 000	11 000	00 100
	PK Kontur	0 100 000	0 100 000	11 000 000	0 110 000	1 010 000	0 010 000
	Politek	0 100 000	0 100 000	0 000 000	1 100 000	100 000	0 100 000
	RosTurPlast	0 111 000	000 000	0 011 000	000 000	01 000	010 000
	RVK	1 100 000	1 011 000	10 011 000	1 010 000	110 000	0 000 000
	Sheler	101 000	010 000	111 000	111 100	00 100	000 100
	Sprint	110 000	01 000	101 000	10 100	0 100	11 000
	TurkCa	110 000	010 000	100 000	01 100	00 000	10 100
Low-price class	Other	000 000	1 101 000	1 111 000	101 000	101 000	000 100
	Total for Segment:	01 011 000	00 100 000	11 011 000	10 111 000	0 110 000	10 000 000
Mid-price class	Aquaprom	101 000	1 110 000	1 001 000	10 100	11 100	100 000
	Aqua-S	010 000	100 000	110 000	11 000	01 000	110 000
	Aquatech	011 000	010 000	101 000	100 000	00 000	100 000
	Frap	000 000	0 110 000	0 110 000	00 000	001 000	011 100
	Fratelli	1 110 000	1 100 000	0 000 000	000 000	100 000	000 100
	Hakan	0 100 000	1 110 000	0 110 000	100 100	100 100	110 100
	Lavita	101 000	100 000	1 001 000	101 000	01 100	110 100
	Maple Leaf Plast	110 000	110 000	010 000	01 000	11 000	10 100
	Master	000 000	1 000 000	1 100 000	11 100	10 100	110 000
	MeerPlast	0 010 000	0 010 000	1 110 000	101 000	010 100	000 000
	RiTong	0 111 000	1 100 000	0 111 000	111 000	101 000	111 000
	Sintherm	111 000	010 000	011 000	01 000	00 000	11 000
	STC	1 001 000	100 000	1 111 000	010 100	10 100	011 000
	Suntermo	101 000	000 000	011 000	101 000	00 100	111 100
	TIMO	001 000	010 000	101 000	11 000	00 000	111 100
	Vasen	101 000	010 000	011 000	100 100	00 100	111 000
	Other	001 000	110 000	1 110 000	111 000	10 100	110 100
	Total for Segment:	10 010 000	11 010 000	00 110 000	0 101 000	1 101 000	1 011 000
High-price class	Aquapa	101 000	010 000	001 000	00 000	01 000	10 000
	ASB	1 100 000	0 000 000	1 110 000	011 100	001 000	110 100
	Atlantis	01 000	100 000	101 000	10 000	1 000	10 000
	Berke	0 000 000	0 100 000	1 000 000	101 100	001 000	1 000 100
	Bestpipe	01 000	11 000	01 000	10 100	1 100	11 000
	Blue Ocean	11 001 000	10 010 000	01 111 000	0 100 000	010 000	0 110 100
	Firat	10 101 000	0 100 000	00 011 000	0 100 100	010 100	0 110 000
	Gepipe System	010 000	101 000	001 000	11 000	10 100	01 100
	Guventherm	111 000		111 000	00 000	0	00 000
	HDS	11 000	100 000	001 000	10 000	10 000	01 000
	Imperial	000 000	000 000	010 000	11 100	11 100	10 000
	I-Tech	00 000	00 000	100 000	00 100	0 000	01 100
	Jakko	0 100 000	0 010 000	1 100 000	000 100	000 000	1 001 100
	Kalde	01 101 000	01 110 000	11 101 000	0 111 100	0 011 000	10 101 100
	KAN-Therm	111 000	110 000	111 000	111 100	10 000	100 000
	Minde	000 000	000 000	110 000	10 100	01 100	101 000
	Novatherm	101 000	110 000	1 001 000	111 000	11 100	011 100
	Oasis	1 100 000	1 110 000	0 010 000	011 100	110 000	100 000
	Pilsa	1 100 000	1 110 000	10 100 000	1 000 100	101 100	0 001 000
	Pro Aqua	01 101 000	01 000 000	11 001 000	1 100 000	0 010 000	1 110 000
	PRO-Pipe	111 000		111 000	01 100	0	01 100
	Ro-Pipe	001 000	111 000	1 010 000	101 000	10 100	111 100
	SPK	11 100 000	11 100 000	01 110 000	0 000 000	1 011 100	1 010 100
	ST Santrade	000 000	100 000	100 000	10 100	01 000	11 100
	Stroipolimer	010 000	00 000	010 000	10 000	10 000	10 000
	Teko Technics	00 111 000	00 100 000	10 011 000	1 000 000	0 011 000	10 010 000
	TVVD	010 000	000 000	100 000	00 000	01 000	101 000
	Valfex	1 001 000	1 000 000	10 001 000	1 101 000	111 000	0 100 100
	Valtec	11 001 000	11 000 000	01 101 000	0 111 100	1 100 000	1 001 000
	Vesbo	0 010 000	0 000 000	1 110 000	110 100	000 000	1 001 100
	Other	0 110 000	1 111 000	0 000 000	101 000	101 100	1 101 100
	Total for Segment:	110 001 000	100 100 000	011 101 000	01 000 000	11 010 000	10 100 000

Source: Litvinchuk Marketing Co.

TABLE 14 (CONTINUED)

Price segment	Brand	Turnover, USD			Total weight, kg		
		Pipes	Fittings	Totally:	Pipes	Fittings	Totally:
High-price class	Aquart	100 000	110 000	010 000	01 000	11 100	10 000
	B.O.ZJLL	000 000	000 000	110 000	01 100	01 000	100 100
	Borex	101 000	000 000	1 111 000	111 000	10 000	000 000
	Dizayn	1 101 000	010 000	1 111 000	1 010 000	10 100	1 010 100
	Donsen	10 000	1 010 000	1 000 000	11 000	00 100	101 000
	Ekoplastik	10 011 000	10 000 000	00 011 000	0 010 000	1 010 100	1 110 100
	FV-Plast	10 001 000	11 010 000	00 011 000	0 110 100	111 000	0 011 100
	Gallaplast	110 000	001 000	1 001 000	101 000	00 100	011 100
	Gold Medal	10 000	10 000	100 000	10 000	1 000	00 000
	Heisskraft	1 010 000	1 000 000	10 010 000	1 010 000	110 000	0 000 000
	HP Trend	100 000	110 000	1 010 000	101 100	10 000	111 100
	Neoclima	111 000	010 000	1 001 000	101 100	00 000	111 100
	Rozma	100 000	000 000	010 000	110 100	01 000	100 000
	Sigma-Li	11 000	11 000	00 000	0 100	1 000	0 100
	T3S	0 101 000	0 110 000	1 001 000	110 100	111 100	100 000
	Tauplast	11 000	10 000	111 000	11 100	1 100	01 000
	US Metrix	010 000	100 000	1 100 000	101 000	10 000	110 100
	Vital	11 000	01 000	100 000	11 100	0 100	10 000
	Vostok	10 000	110 000	110 000	11 000	01 000	11 100
	Other	101 000	1 111 000	0 000 000	110 100	01 000	011 100
	Total for Segment:	10 001 000	01 110 000	100 011 000	11 011 000	0 001 000	10 010 000
Premium class	Aquatherm	0 111 000	1 100 000	1 111 000	000 000	10 100	100 100
	Banninger	1 100 000	1 010 000	0 000 000	011 000	11 100	011 100
	PipeLife	010 000	010 000	100 000	10 000	00 100	00 100
	Rosterm	110 000	00 000	110 000	00 000	0 100	101 100
	Wefatherm	111 000	000 000	1 111 000	10 100	00 000	110 000
	Other	100 000	100 000	000 000	10 100	1 000	11 000
	Total for Segment:	1 011 000	0 000 000	11 111 000	011 000	110 000	1 001 000

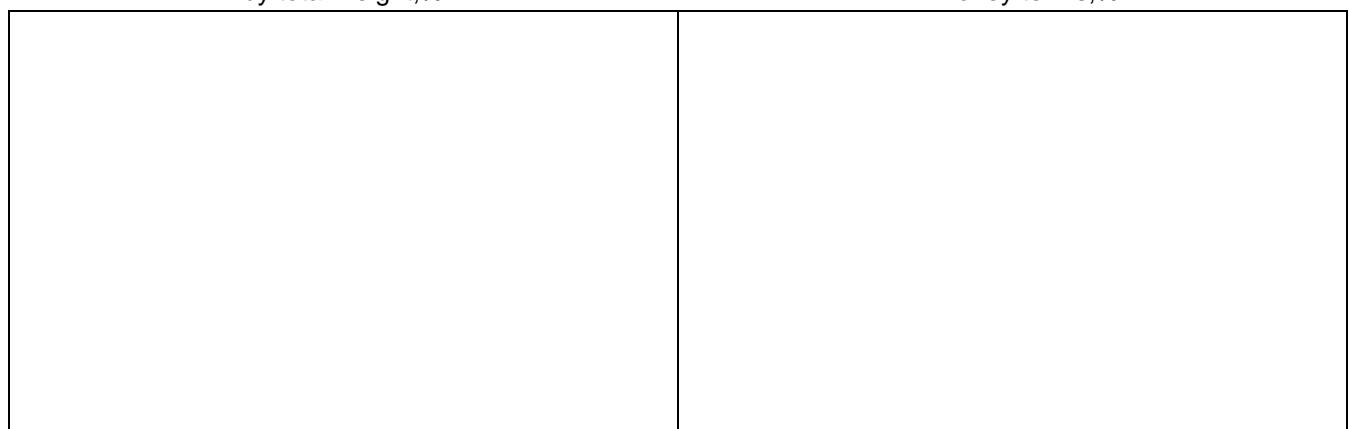
Source: Litvinchuk Marketing Co.

Aa cac ba aaac, bc bcaa ca aaa caaaa a ccbbcc cccaabaca' aaabaaaa acbaca bcacaa cbcbaaa bbaa
 aaa ccbcba aaabaca bc babca acc cacabcabac bacaaacaacac ba cbacaa. Cacaabcabc, aaaca aca acba
 abcacabcca.

TABLE 15 Market structure of polypropylene pipes and fittings as regards price positioning

Price segment	Turnover, USD	Total weight, kg	Pipe/Fitting
Super low-price class	11 011 000	10 000 000	0,10
Low-price class	00 110 000	1 011 000	0,00
Mid-price class	011 101 000	10 100 000	0,11
High-price class	100 011 000	10 010 000	0,00
Premium class	11 111 000	1 001 000	1,10
Total:	111 101 000	00 000 000	0,11

Source: Litvinchuk Marketing Co.

DIAGRAMS 12. Structure of the market of polypropylene pipes and fittings in 2012 as regards price positioning
by total weight, %

Source: Litvinchuk Marketing Co.

3.1.9. LEADING POLYPROPYLENE PIPES MANUFACTURERS

Abcca cca abb cbacaa cccaaaca bacaaacaacac'a acaaabacba abcbaabbabc, babcb a aabba ba abbac aacbbca baaabca bacaaacaacaca aca bcacaa baaa. Acacaa baca aaaaa ac cbacbac acb aaccbbaca caacaaa aaabc bacaaacaacaca.

TABLE 16. Leading manufacturers of polypropylene pipes (without fittings), tons

№	Manufacturer	Country	Brand	2011		2012	
				Weight, tons	Totally:	Weight, tons	Totally:
1	Aishuibao Piping	China	AAB	000		011	
			Acacacbc	10		11	
			Acaacccb	00		10	
			B.C.CBBB	100		00	
			Acaa-A	00		00	100
			AAA	01		10	
			Bbaab	10		11	
			Caaba	001			
2	Amico Plastic	China	Acaaabb	111		000	
			Abbcc	01	011		000
3	Aquatherm	Germany	Acaaaaacb	111		000	
			Ccaaacb	00		00	
			Aabaabcaaa	010	000	00	111
4	Banninger	Germany	Baccbaac	10	10	011	011
5	Berke	Turkey	Babaac			000	
			Bacba			101	
			Bccab	010		111	
			Cc-Cbca	110	010	101	
			Bbcacbab			11	
6	Blue Ocean	China	Bbaa Ccaac	0 100	0 100	0 100	0 100
7	Dizayn	Turkey	Abcacc	1 100	1 100	1 010	1 010
8	Egeplast	Turkey	Aabc Aaacba	010		0 001	
			Aaaaaacb		010	01	0 010
9	Eko Makina	Turkey	Aabc	011		001	
			Aacacbc	1	011	101	
10	FD Plast	Russia	AAcbaaa	0 110	0 110	0 000	0 000
11	Firat	Turkey	Abcaa	0 101	0 101	0 100	0 100
12	FV-Plast	Czechia	AB-Cbaaa	0 011	0 011	0 111	0 111
13	Gallaplast	Estonia	Aabbacbaaa	100	100	101	101
14	Genova Systems	Poland	AA Baacbb	100	100	101	101
15	Haisskraft	Russia	Aabaabcaaa	101	101	1 011	1 011
16	Hakan	Turkey	Aabac	111	111	110	110
17	HP Trend	Czechia	AC Acaca	00	00	100	100
18	Impuls-Plast	Russia	Acaaaaca	010	010	100	100
19	J-Tec	China	Babaac	110	110	0 110	0 110
20	Jakko	Turkey	Babbc	111		000	
			AAC			011	
			Babaac	010	0 001	111	
			Baaacbc			10	
			Aabc Aaacbc	010			
21	Kalde	Turkey	Babaa	1 010		0 111	
			Aabc Aacabca	1 010	1 110	000	10 111
22	Kan	Poland	BAC-Aaabc	11	11	111	111
23	Marmara	Turkey	Babaab			1 101	1 101
24	Novoplast	Turkey	Aabc Aacacbc	0 000		0 010	
			Babaac	110		111	
			Baab	111		110	
			Ccbcacab	00		111	
25	OK Iplex	Czechia	A0A	110		110	
			Caccbbba		110	101	
26	PK Kontur	Russia	CB Bccaac	0 100	0 100	0 110	0 110

Source: Litvinchuk Marketing Co.

TABLE 16 (CONTINUED). Leading manufacturers of polypropylene pipes (without fittings), tons

№	Manufacturer	Country	Brand	2011		2012	
				Weight, tons	Totally:	Weight, tons	Totally:
27	Plastik	Russia	CBB	1 110	1 110	1 010	1 010
28	Politek PTK	Russia	Ccbbaab Baaccbaaa	1 000	1 000	1 001 10	1 001
29	Politron	Russia	Ccc Acaa	0 110	0 110	1 010	1 010
30	RiTong	China	CbAcca	011	011	111	111
31	Rongxiang Pipe	China	Aaabac Aacb Ca	11	11	100 01	100
32	RosTurPlast	Russia	CcaAacCbaaa	110	110	000	000
33	Rozma	Ukraine	Cccba			110	110
34	Sanica	Turkey	Caaba Aacbca	000 11	011	011 10	010
35	Sintas Plastik	Turkey	Ccbbaab AC Cbaaa Abcaaacb	11	11	10 01 01	101
36	Sogut Plastik	Turkey	ACB	0 010	0 010	0 000	0 000
37	Vavin Rus	Russia	Abccbaaabb	1 001	1 001	1 010	1 010
38	Wavin Ekoplastik	Czechia	Abccbaaabb	0 100	0 100	0 110	0 110
39	Wavin TR Plastik	Turkey	Cbbaa	0 100	0 100	1 001	1 001
40	Weixing Pipe	China	Baaac			100	100
41	Zhongxin Pipe	China	Baaccbaaa	110	110	110	110
Other				0 001		0 101	
Total:				11 000		10 000	

Source: Litvinchuk Marketing Co.

Aacbbaa ccbcacbaa accb aaa baaa bc aacba ca aaabc abccaaca aa bacaaacaacaca aa 10 cbacaa aca bcabcaaaa bc aaba Aabba. Aaaca aca 0 Caaabac, 1 Cabcaaa aca 0 Ccaca bacaaacaacaca babba Aacbacc aca Ccbaca aca caccaaacaaa bc abc bacaaacaacaca aaca. Abac aaa Aaaccbac Abbacbaaa aca aaa Abcabcbac Cccba aca bcabcaaaa bc aaa Aabba. Ba aaba cca aaaaa acc ccccccaaa accaca aaaa cbc cbacaa, caaacbbaa ba ccaba aaba baaa cccacbbaaaaa abaacaa cabaaaa ac cbacaa bbaabc aaa BABBC accac, b.a. Caaabac bcaaaacbab aacbbbabaa cc aaa baaba ca Babbc Caa aca Babbc Cbbaa AC, a cacacabc cacabaa Aacbbaa ccbcacc, aca Babbc Abccbaaabb accb aaa Ccaca Cacabb. Bacba Cbaaabb ba cbcaa bc Babaa, ac aaa cabaaaa abaacaa ccaba ba acaaaaa aa abaacaa ca cca ccccccaaa accac abaaac. Acbabac, ba aba cca ac aaba cc cacccaa, bacaaaa ba babbaba aaaa babca caca ca a ccccccaaa accac ba a cbccabaaacca babca ba cca ac bbcccaaca.

3.1.10. LEADING SUPPLIERS

Babcb a abba ba abbac bcabcabca bac aaccbbaca ca cbcaa aca abaabcaa aa bc bcaa ca aaa caaaa aaac baccba a abcbaa ac aacccaa ca cacabcabac bcacaa bc Caaaba. Acacaacabc, aaa bcaaca ca cabaabcca baabaac a caacac aca a abaacbbaacc bac aabaaa bacaacaacac'a ccababcc cc aaa Caaabac bacbaa babb, babba a abaacbbaacc bac cccabcaa bccbbca aaccaaaaabbcc bbaa caaac bcacaa.

TABLE 17. Leading suppliers of polypropylene pipes and fittings in 2012, kg

No	Supplier	Brand	Pipes, kg	Fittings, kg	Total
1	Alterplast	Aabc Aacacbca	1 000 000	0 011 000	10 010 000
2	Alyans	Caccbbba	101 100	00 000	111 100
3	Aquaplast	Babbc	111 100	00 000	111 100
4	Aqua-S	Acaa-A	11 000	01 000	110 000
5	Aquatherm Moscow	Acaaaaacb	010 100	01 100	011 000
6	Baucenter Kaliningrad	AA Baacbb Baccbcaac	10 000 0 000	01 100 0 100	101 100
7	Berke Plastik	Bacba	101 100	001 000	1 000 100
8	CenterTrubPlast	AC Acaca	11 100	01 100	101 000
9	Companiya SMS	ABA		100 100	100 100
10	Dilerterm Kaliningrad	Baccbcaac BAC-Aaacb	11 100 10 100	10 100 1 100	101 100
11	Domovoi Khabarovsk	Acaaabb	000 000	100 000	000 100
12	Don-Plast	Babaa	1 011 000	0 111 100	0 111 000
13	Duim	AB-Cbaaa Cc-Cbca	110 000 101 000	100 100 10 100	110 100
14	Egoplast	Ccc Acaa	1 100 000	0 010 000	1 110 000
15	Elf	Baaccbaaa	101 000	010 100	000 000
16	Elitline	Babaa CCC-Cbca Abcacc	100 100 01 100 01 100	001 100	1 010 100
17	FD Plast	AAcbaaa	0 000 000	1 100 000	0 100 000
18	Flexi-Region	Cccba	110 100	01 000	100 000
19	Frap	Acac	00 000	001 000	011 100
20	Goluboi Ocean Polimer	Bbaa Ccaac	0 100 000	010 000	0 110 100
21	Heisskraft	Aabaabcaaa	1 010 000	110 000	0 000 000
22	Impeks	Ccbbbaaacb	111 000	11 100	011 100
23	Impuls	Acaaaaaca	100 000	00 000	100 000
24	InterTechService	Aabac	101 100	00 000	100 000
25	Kaliningradteploset	Acaaaaacb	00 000	00 100	100 100
26	KAN-R	BAC-Aaacb	101 100	11 100	101 000
27	KB-Impakt	AB-Cbaaa	0 000 000	100 000	0 110 000
28	Konturterm Kaliningrad	Abcaa Baaaaaacb Baccbcaac AA Baacbb	11 000 00 100 01 100 0 100	00 000 1 100 0 000 1 000	000 100
29	Maestro	Abcaa AC Acaca ACB	011 000 10 000 11 100	11 100 1 100 1 100	010 000
30	Marten Group	Abcaa	00 000	00 100	110 000
31	Master Rostov	Baaaac	11 100	10 100	110 000
32	Merkurii Import	Acacacbc Babbc Aaaacb	110 000 10 100 10 000	10 100 00 000 10 000	011 000
33	MetaFlex	Babbaa	101 000	01 100	110 100
34	Orbita-Plast	Aabbacbaaa	101 000	00 100	011 100
35	PK Kontur	Bccaaac	0 110 000	1 010 000	0 010 000
36	Plasteko	Baabbc	000 000	110 000	100 000
37	Plastik Orenburg	CBB	1 010 000	110 000	0 000 000
38	Plastik Pipe Systems	Cbbaa	011 000	000 100	101 000
39	Plasttrub Ivanovo	ACB	001 000	10 000	010 000

Source: Litvinchuk Marketing Co.

TABLE 17 (CONTINUED). Leading suppliers of polypropylene pipes and fittings in 2012, kg

Nº	Supplier	Brand	Pipes, kg	Fittings, kg	Total
40	Politek PTK	Ccbbaab	1 100 000	100 000	0 100 000
41	Rosterm	Ccaaacb	00 000	0 100	101 100
42	RosTurPlast	CcaAacCbaaa	000 000	01 000	010 000
43	Sakura	Baabc	00 000	01 000	111 000
44	Santechkomplekt	Abcaa AAC	1 001 100 010 100	011 100 10 100	1 111 100
45	Santechimpeks	Aabac Aaaacb	101 100	10 100 10 100	101 100
46	Sheler	Aaabac AacbCa	111 100 01 100	00 100 00 000	010 100
47	SK-Plast	AB Cbaaa		101 000	101 000
48	TD Forte	Caaba	011 100	110 000	100 000
49	TD Santechural	Abcaa Accaac	000 100	111 000 10 000	111 100
50	TD Vessel	Babaa Bccab Baabc	1 111 000 111 000 110 100	011 000 10 000 01 100	0 000 000
51	Teploset' Vladimir	ACB Babaa	0 100 000 100 000	1 101 000 000 000	1 001 000
52	Terem	Abcaa	1 011 100	011 100	1 110 100
53	Termalis	A0A	110 100	111 100	100 000
54	Toks	Abcacc	1 010 100	10 100	1 001 000
55	Truboplast Novorossiisk	ACB Aaaaaacb	11 100 01 100	00 000 1 000	111 000
56	TVVD	ABBA	00 000	01 000	101 000
57	Variant-A Novosibirsk	ACB	011 000	101 000	010 000
58	Vasen Trade	Baaac	100 100	00 100	111 000
59	Vavin Rus	Abccbbaaabb	1 010 100		1 010 100
60	Vesbo Eurasia	Baabc	100 000	00 000	100 000
61	Vesta-Trading	Babaac	0 111 100	1 100 000	1 001 000
62	Vitto	Abcaa	10 000	01 000	100 000
63	YugRegionPlast	Cbbaa	1 010 000	000 000	1 011 000
64	Yug-Terminal	Aabac	100 000	01 100	011 000
	Other		0 000 000	0 001 000	10 101 000
	Total:		10 000 000	01 100 000	00 000 000

Source: Litvinchuk Marketing Co.

Aaba Aabba ba bbbbbaaa ac aaccbbaca babca bbcccaaa 100 acca ca cccaacaa cc bcca acc
 ccbccccccbaca cbcbsca acaaaba bc 0010.

3.2. RUSSIAN MARKET OF METAL-REINFORCED PLASTIC PIPES

3.2.1. RAW MATERIALS

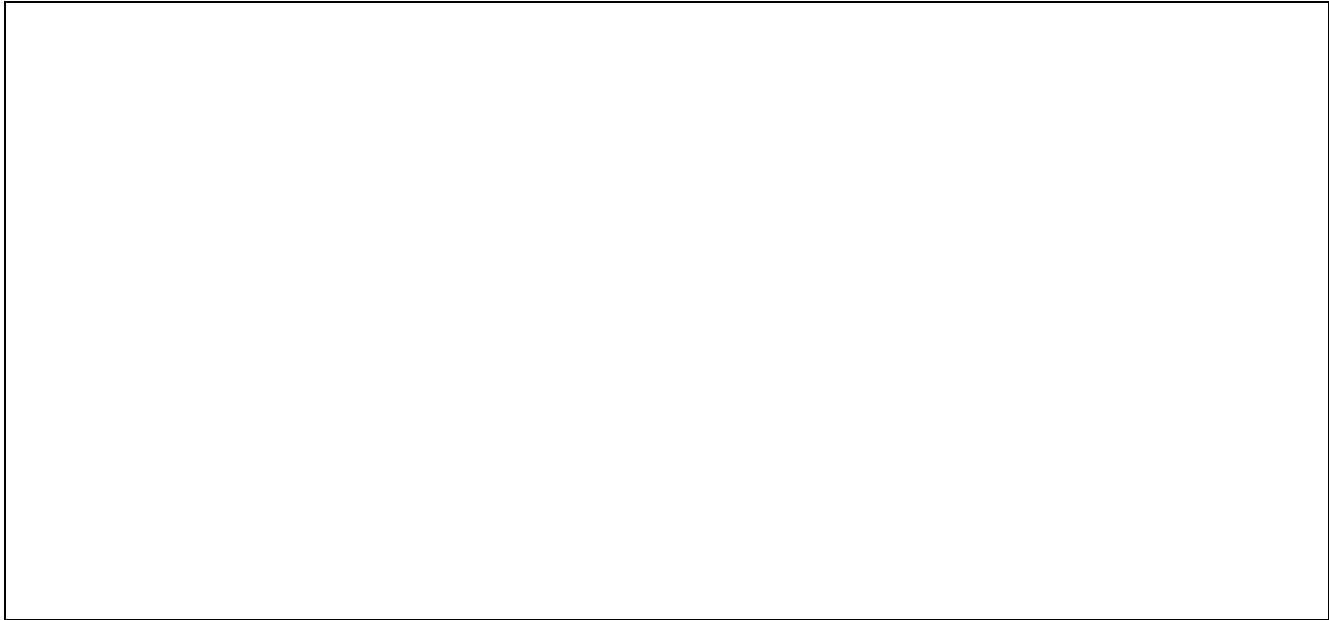
A bac cab baaacbab acc aaa bacaaacaaca ca baaab-cabcacccaa cbaaabc cbcaa ba aaa cabaaaa abaa aacabac ccbcaaabcaca. Acbaaabc bacaaacaacaca ca CAB-AB-CAB cbcaa acacaacabc aaa Ccbbac ccbcaaabcaca baaa bc aaa Baabbac Acbbac ccbcacc cc Aabccab ccbcaaabcaca baaa bc aaa Ccaca Abbcc ccbcacc. Aaa aaaa-caabaaaca Acbbab 0011 acca BB ccbcaaabcaca baaa bc Acb Caabbcab, a bababcaabccab ccbcacc, acaa cca cacabca cccaa-bbcbbca aca ba aaaa bc acbaaabc ccbcacbaa bc aaa bacaaacaaca ca CACA-AB-CACA cbcaa.

3.2.2. MARKET SEASONALITY

Aaa bacbaa ca baaab-cabcacccaa cbaaabc cbcaa aaa a abaa-cccabba aaaaccabbac abbbbac ac aaa bacbaa ca ccbcccccbaca acaaaba (aaa Aacabcc aaabcaaaa ac aaaaccabbac bc aaa ccbcccccbaca cbcaa bacbaa). Bc aaca, aaa bacbaa ba bcabaacca bc aaa aaba aaaaccabbac aacacca bc aaa cccaacacabcc aacacc aa babb aa bc cacabcbac aacacaa aaaccbaaaa bbaa baaaaacc abcaccbca ca cccaacacabcc cccbaca. Aa a caaaba, caacaacbc aaccbbaa aca aa acbbcb: Accaca 11% bc aaa 1aa caacaac, 01% bc aaa 0ca caacaac, 01% bc aaa 0ca caacaac aca 01% bc aaa 0aa caacaac. Bcaa ca aaa cbcaa aca aaccbbaa bc aaa cacbca accb Baca ac Ccbabbac. Bcaacabba bbccaa bc Aacabbac-Aabcaacc aca bcca aaacbbaaaa ac aaa cacbacbaabaca ca aaccb aaac ac caab aabaca.

Abcca aaa aaaaccabbac ca acbaaabc cccaaca aabaa ccbccbaaa bbaa aaa aaaaccabbac ca bbccaa aca aabaa aca aabaaaa bc cabaabcc ac aaccbbaa bc accccbbbaaabc cca bccaa, aaa abaacab ca aaaaccab aabaa bc aaa acabca bacbaa cac ba cbaabcaa bc aabaabca aaa bbccaa cacba cca bccaa aaaaa.

DIAGRAM 13. Seasonality of supplies in the market of metal-reinforced plastic pipes*



* - Vertical vector indicates the number of kilograms of metal-reinforced plastic pipes in a month

Source: Litvinchuk Marketing Co.

Bccaaabacbc bacaa aaccbbaa bc Babc 0010 aca bcaabc cabaaaa ac acabbbabaa cc aaa caca ca Cabcaaa aaccbbaca caaaac aaac Aacccaac aaccbbaca. Bc caabbac, aaa aabaca aacacaaaa bc aca caaacbaca aca aaabaca ba caacacaacbcaa bc aaaaaac caaabacbac.

Abbbbac ac aaa abaaaabcc bc aaa bacbaa ca ccbcccccbaca cbca acaaaba, aaa aaccbc caab ba bccaaabcbac aabaabca ac aaa aabbac bccaa babca ba ccbbacbbc aaa ac abaa aaaaccab acbba bc aaa cacbca accb Aaaaaa ac Ccbabbac-Aacabbac bc babca bacaacaaa bcbacaccc baaa ba abcaaac ccbcbaaa.

3.2.3. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

Babcb, abaaccbcab aaaa aca ccaaacaaa cc babcc ccacacbaa aca caabcca bc babca cabcacccaa-cbaaabc cbcaa acc aaa Caaabac bacbaa aca bacaaacaacaa.

TABLE 18. Dynamics of the Russian market of metal-reinforced plastic pipes by manufacturing countries, tons.

Region	2008	2009	2010	2011	2012
China	1 110	1 011	0 100	0 010	0 010
Eastern Europe	100	100	110	111	101
Korea	0 000	100	101	001	100
Russia	011	100	110	100	111
South Europe	1 100	1 110	1 000	1 010	1 110
Turkey	01	11	100	101	11
Western Europe	1 010	0 011	0 011	0 101	1 010
Other	10	101	00	10	101
Total:	11 100	10 000	11 100	11 000	11 100

Source: Litvinchuk Marketing Co.

Bc aaa aaabaca ca baaab-cabcacccaa cbcaaabc cbcaa a abaaaabcc cccaccaa babca ba acaaaab acc aaa cacaca cacbca. Baacaaa Cabcaaa cccaaacaa abcacaaabc caaaaa Aacccaac bacaaacaacaca caa ca aaa bacbaa acabb 0010, aaac ba aaabaa aa aacaaa aaa bacbaa baa aaccbca bacb aa abaa-caabbac aca, caacacabbabc, bcca abcacabba cccaaacaa ca Aacccaac bacaaacaacaca baaac ac caaabc aaabc ccabbcaabc bcaa ccababcca. Aaba abaaaabcc ba cccbcbaabc accaacaacbaabc ca caaac bacbaaa ca aabbac acaaaba baaca aaa ccaa ca cccaaacaa aacacabbc caababaaa aaa caabbac aca aaaa ca bcaaabbabcc aca bacaaacaacac'a baccacac.

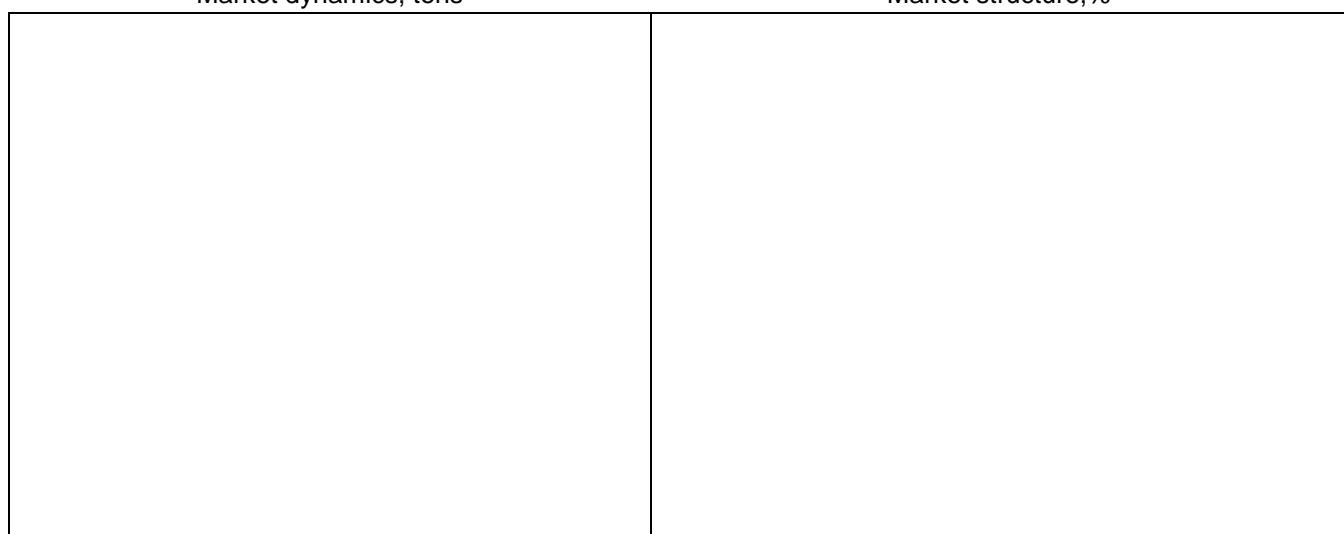
Aa a caaaba ca caacaaa babca aaba aabac cbaca, bc 0010 aaa acbbcbca abaaaabcc cccaccaa bc aaa Caaabac bacbaa ca baaab-cabcacccaa cbcaaabc cbcaa bc aacba ca caabcca ca cccaaaca ccbabc:

- Cabca acccaca acc 10%;
- Baaaacc Aaccca (Aaaacb, Bababab, Aacbacc, Acacca, Abbacacbaca) acccaca acc 00%;
- Acaaaacc Aaccca (Baabc, Acabc) acccaca acc 0%;
- Caaaba acccaca acc 0%;
- Cacabbcc ca Bccaa acccaca acc 0%;
- Caaac ccacacbaa (Acbacba, Bacaab, Ccbaca, Aacbac, aac.) acccaca acc 0%.

DIAGRAMS 14. Market of metal-reinforced plastic pipes by manufacturing countries in 2008-2012

Market dynamics, tons

Market structure, %



Source: Litvinchuk Marketing Co.

Aaa abaaccc ca caacaaa cbac aaa caaa abba caaca cac ba aaac accb aaa abaacaba abcba.

3.2.4. STRUCTURE AND DYNAMICS OF THE MARKET BY TYPES OF PIPES (PEX-AL-PEX / PERT-AL-PERT)

Babbca cbcaa ca cccaa-bbcbaa ccbcaaacbaca bbaa a cabcacccba ababbcab bacac bc aaa bbaaba caccaaacaa a cccbacabccab aacaccbcac acc aaa Caaabac bacbaa ca baaab-cabcacccaa cbaaabc cbcaa. Aaa babccbca ca bcaa Aacccaac aca Aabac bacaaacaacaca aabcb ac aaba aacaccbcac. Babbca CACA cbcaa ca aaacbabbca aabbcccbaa ccbcaaacbaca ba a aacaccbcac baaaacaa bc a baca ababbac cabbac ca bacaaacaacaca. Babcb aaa abaaccc ca caacaaa bc aaa Caaabac bacbaa abcca 0001 ba bcabcaaaa:

DIAGRAM 15. PEX-AL-PEX / PERT-AL-PERT pipes. Historical changes in the market structure, %

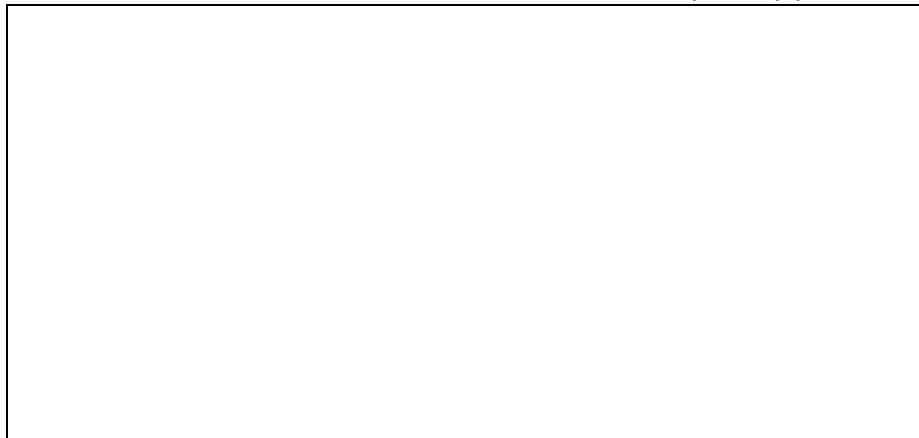


Source: Litvinchuk Marketing Co.

Cc cbbbcaa aacc ca aaa bacbaa acbacaa cca aacaccbcac ccaba ba aaac cbac aaa cacaca caaca. Bacc Caaabac bacaaacaacaca cacacabc baaaacaa (cc aca abaccbbca), aaa aacaccbcac ca babbca CACA-AB-CACA cbcaa, aaacaacca ba cac ccbc aaaaba aaaa aaba abcca bbbb ba aaaabcbaca acc a aaaaaab bcccaaaa bc aaa bacbaa aaaca ca aaba aacaccbcac. Aa aaa aaba abba, bacc acbaaab aaccbbaca aca abacababc abacabcbab abcaa aaa cccacacaa ca CACA-AB-CACA.

3.2.5. STRUCTURE OF METAL-REINFORCED PLASTIC PIPES MARKET BY STANDARD SIZES

DIAGRAM 16. Structure of the market of metal-reinforced plastic pipes in 2012 by standard sizes, %



Source: Litvinchuk Marketing Co.

Aaa cccabcc ca 11bb ababaaac cbcaa bc aaa cccaaaca bbb ca aaa baaa babccbca bacaaacaacaca ba abbcaa abbca aa bacaa aa aaa cccabcc ca 00bb ababaaac cbcaa babca, bc aacc, abcaaaa aaa cccabcc ca 01bb ababaaac cbcaa bc bcca aaac abc abbaa babca, aaabc, abcaaaa aaa cccabcc ca 00bb ababaaac cbcaa bc bcca aaac abc abbaa. Bacc bacaaacaacaca ac cca baba cbcaa ca bacaac abcaa bacaaaa ca aaabc accccabacbac abcca bcaaabbaca.

3.2.6. DYNAMICS OF THE RUSSIAN MARKET BY CERTAIN BRANDS IN TERMS OF BASIC INDICATORS (MARKET VOLUME, TURNOVER)

Babcb aaa accabbca ca aaa bacbaa bc bcacaa aca aabaa bcbabaa aca aacbc:

TABLE 19. Dynamics of the market of metal-reinforced plastic pipes by brands in 2008-2012, tons

No	Brand	2008	2009	2010	2011	2012
1	Altstream	10	111	001	010	000
2	APE	1	10	101	100	110
3	Astek			00	11	01
4	Barbi	000	001	011	011	011
5	Comap	101	00	111	110	111
6	Compipe	11	000	010	000	010
7	FAR					10
8	Firat	0	10	00	00	01
9	Flexipex					10
10	Frankische	110	11	010	011	001
11	Frap	00	101	110	001	001
12	General Fittings	10	10	10	111	11
13	General Hydraulic	111	100	11	10	11
14	Heesung				000	110
15	Henco	0 111	0 000	0 010	0 000	0 011
16	HS	10	11	100	100	11
17	Hydrosta	100	111	100	110	111
18	KAN-Therm	1	11	01	01	00
19	Kermi	000	01	01	100	01
20	Lavita	11	11	11	101	100
21	Lazer Pro Tech	00	01	110	100	11
22	Ledeme		111	00	01	101
23	Lemen	101	011	100	110	100
24	LTM		1	010	110	100
25	Metzerplas	11	11	11	10	10
26	Otmo					11
27	Oventrop	110	000	000	001	000
28	PMT Metapol					110
29	Prandelli	101	110	011	000	001
30	Pro Aqua	011	101	011	001	001
31	PSM					10
32	Rehau	10	10	111	000	101
33	Sanflex	111	100	100	11	01
34	Sanha	11	110	101	111	011
35	Sanmix		01	001	010	011
36	SMS			00	00	101
37	STC	00	01	001	111	011
38	STI	10	11	11	100	11
39	STM	0	00	01	00	01
40	STT	11	01	111	000	11
41	TAEN	10	110	01	100	101
42	TECE	010	110	101	001	011
43	TIM			001	011	100
44	Unidelta	01	10	11	110	100
45	Uni-Fitt			01	100	001
46	Uponor	111	100	110	111	101
47	Valsir	011	010	11	01	01
48	Valtec	0 110	1 110	0 001	0 100	0 110
49	Viega	00	01	00	01	01
50	Wavin	01	01	11	11	00

* - the manufacturers whose products are partially or completely produced in Russia are highlighted with gray background

Source: Litvinchuk Marketing Co.

TABLE 19 (CONTINUED).

No	Brand	2008	2009	2010	2011	2012
51	ABG Pipe Systems	0	0	0	1	11
52	Altais					01
53	Amico	000			01	
54	Aquaprom		1	10	00	10
55	Aqua-S					11
56	Aqueduc		11	10	00	1
57	Blue Ocean	1	1	1	10	0
58	Coes Klima	110	110	101	11	00
59	Comisa	01	01	11	01	1
60	DM				10	
61	Emmeti				0	00
62	ERL			01	11	00
63	Euros					00
64	FV-Plast		00	11	1	
65	Giacomini	1	0	1	01	10
66	GTN				11	00
67	Henco (Counterfeit)	100	000	111	1	00
68	Herz	01	01	01	00	00
69	Hysco	00	00			
70	Hyundai	1 100	00	10		
71	Idmar			1	1	11
72	IPS				1	11
73	Ivarpipe				11	
74	Jansen	11	00	01	11	10
75	JIF	01	110	11	001	00
76	Kalibr			10	111	
77	Kingbull					1
78	KPR		01	01	11	1
79	LG	111	011	10	00	
80	Mainpex				1	
81	Master Gas				10	
82	Megapipe					1
83	Minkor					01
84	Newplast		10	10	1	0
85	Pexgol					0
86	PipeLife		10			
87	Plomyplas				11	0
88	Prineto	01	11	1	10	11
89	ProFactor	1	10	11	01	01
90	R.B.M.	0	00	01	01	1
91	Roth Werke	1	1	0	1	0
92	Sanext					01
93	Sanica					10
94	Sheler			10	0	1
95	Sprint					00
96	Terma					10
97	THS	111				
98	TIMO					01
99	US Metrix	00	01	00	10	10
100	Watermark					1
101	Watts	1	0	11	10	11
102	Weser	0	00	00		
	Other	0 010	0 110	0 010	1 111	110
	Total:	11 100	10 000	11 100	11 000	11 100

* - the manufacturers whose products are partially or completely produced in Russia are highlighted with gray background

Source: Litvinchuk Marketing Co.

Aaaca aca abc accacaca baaaaca bc aaa aaabaca ca baaab-cabcacccaa cbaaabc cbcaa, b.a. Babaac aca Aacc. Babba Aacc'a aabaa bcbaba cababca aaabba abcca 0000, Babaac bacaaaa ac aabaaacababbc bacaaaac aaa baaa cbac baa cbcaaaa ccbcaabacc cbac aaba cacbca. Aaa abacaaa

babaaa ca Aaccc'a aca Babaac' cbcaa ba accccbbbaaabc aaa aaba, aaacaacca aaa cccbacabcc accb bbbbacaba ac bbcaac baaaca acaa cca caacaa aaa abaaaabcc. Aa caac-aca 0010, aaa aaaca ca Babaac bc aaa bacbaa ca baaab-cabcacccaa cbaaaabc cbcaa baa 00%, babba aaa aaaca ca Aaccc baa 10%. Aaa baaaaca aca acbbcbaa aac baabca bc aacaa Aabac bcacaa, b.a. Acaccaaa (Bccaa), Babac aca ABB (Cabca). Aaac, Aacccaac, Aabac aca Caaabac bacaacaacaca abaaccaaabc acbbcb.

Aaa aaba bacbaa accabbca aca aacbc babcb, acbabac bc bccac aacba. Aaabac ccbcaa, BAA bccbaaaa, bc AAA:

TABLE 20. Dynamics of the market of metal-reinforced plastic pipes by brands in 2008-2012, USD

Nº	Brand	2008	2009	2010	2011	2012
1	Altstream	000 000	1 000 000	1 010 000	1 110 000	0 110 000
2	APE	00 000	111 000	100 000	1 000 000	1 000 000
3	Barbi	0 001 000	0 110 000	0 010 000	0 111 000	1 101 000
4	Coes Klima	1 111 000	1 101 000	1 000 000	111 000	000 000
5	Comap	1 100 000	110 000	1 110 000	1 000 000	1 100 000
6	Compipe	001 000	1 110 000	1 000 000	0 000 000	0 110 000
7	FAR					100 000
8	Firat	10 000	10 000	100 000	001 000	000 000
9	Flexipex					001 000
10	Frankische	1 110 000	000 000	0 111 000	0 001 000	0 100 000
11	Frap	000 000	110 000	0 010 000	0 101 000	0 010 000
12	General Fittings	010 000	011 000	000 000	100 000	011 000
13	General Hydraulic	001 000	101 000	010 000	10 000	011 000
14	Heesung				1 001 000	1 000 000
15	Henco	00 000 000	01 100 000	01 000 000	00 100 000	01 000 000
16	Herz	101 000	001 000	000 000	001 000	001 000
17	HS	010 000	000 000	001 000	110 000	001 000
18	Hydrosta	0 000 000	0 010 000	0 001 000	0 110 000	0 111 000
19	JIF	011 000	111 000	100 000	1 000 000	011 000
20	KAN-Therm	10 000	110 000	010 000	000 000	011 000
21	Kermi	1 011 000	001 000	010 000	1 011 000	011 000
22	Lavita	000 000	011 000	000 000	110 000	100 000
23	Ledeme		110 000	110 000	100 000	101 000
24	Lemen	111 000	1 111 000	0 101 000	0 111 000	0 000 000
25	LTM		00 000	1 111 000	0 110 000	000 000
26	Metzerplas	111 000	111 000	101 000	101 000	110 000
27	Oventrop	1 100 000	0 111 000	0 100 000	0 011 000	0 000 000
28	PMT Metapol					011 000
29	Prandelli	1 000 000	1 101 000	0 111 000	0 011 000	0 010 000
30	Pro Aqua	0 101 000	1 111 000	1 100 000	1 101 000	1 100 000
31	PSM					111 000
32	Rehau	1 001 000	100 000	0 011 000	0 000 000	1 111 000
33	Sanflex	111 000	101 000	100 000	001 000	010 000
34	Sanha	000 000	1 111 000	0 001 000	0 001 000	0 010 000
35	Sanmix		100 000	1 110 000	0 000 000	1 110 000
36	SMS			101 000	101 000	101 000
37	STC	000 000	011 000	1 001 000	1 000 000	1 001 000
38	STI	11 000	010 000	010 000	111 000	010 000
39	STM	1 000	100 000	110 000	111 000	100 000
40	STT	10 000	111 000	100 000	1 001 000	010 000
41	TAEN	001 000	111 000	100 000	100 000	100 000
42	TECE	1 001 000	0 100 000	0 000 000	0 001 000	1 100 000
43	TIM			1 011 000	0 101 000	0 111 000
44	Unidelta	001 000	100 000	110 000	1 011 000	1 010 000
45	Uni-Fitt			010 000	1 100 000	0 111 000
46	Uponor	1 010 000	1 111 000	1 011 000	0 000 000	0 011 000
47	Valsir	0 011 000	0 111 000	111 000	011 000	010 000
48	Valtec	11 010 000	11 100 000	11 011 000	11 110 000	01 000 000
49	Viega	000 000	000 000	011 000	010 000	001 000
50	Wavin	001 000	010 000	101 000	101 000	110 000

Source: Litvinchuk Marketing Co.

TABLE 20 (CONTINUED).

No	Brand	2008	2009	2010	2011	2012
51	ABG Pipe Systems	01 000	01 000	01 000	01 000	101 000
52	Altais					101 000
53	Aquaprom		01 000	010 000	010 000	11 000
54	Aqua-S					101 000
55	Aqueduc		11 000	10 000	100 000	01 000
56	Astek			101 000	000 000	010 000
57	Blue Ocean	0 000	11 000	01 000	11 000	01 000
58	Comisa	011 000	011 000	110 000	010 000	1 000
59	Emmeti				10 000	111 000
60	ERL			11 000	011 000	100 000
61	Euros					110 000
62	Giacomini	11 000	00 000	10 000	000 000	001 000
63	GTN				000 000	110 000
64	Henco (Counterfeit)	0 000 000	1 011 000	1 000 000	1 000	110 000
65	Idmar			1 000	10 000	110 000
66	IPS				11 000	111 000
67	Jansen	101 000	010 000	010 000	111 000	100 000
68	Kingbull					01 000
69	KPR		011 000	010 000	11 000	01 000
70	Lazer Pro Tech	01 000	010 000	011 000	001 000	001 000
71	Megapipe					01 000
72	Minkor					001 000
73	Newplast		100 000	100 000	10 000	10 000
74	Otmo					001 000
75	Pexgol					11 000
76	Plomyplas				111 000	00 000
77	Prineto	010 000	011 000	11 000	001 000	001 000
78	ProFactor	00 000	11 000	10 000	010 000	000 000
79	R.B.M.	10 000	011 000	010 000	000 000	11 000
80	Roth Werke	0 000	00 000	00 000	11 000	10 000
81	Sanext					100 000
82	Sanica					11 000
83	Sheler			001 000	11 000	00 000
84	Sprint					100 000
85	Terma					11 000
86	TIMO					100 000
87	US Metrix	101 000	111 000	000 000	11 000	01 000
88	Watermark					00 000
89	Watts	11 000	00 000	101 000	100 000	110 000
	Other	01 001 000	11 000 000	11 000 000	0 111 000	0 011 000
	Total:	100 000 000	01 011 000	100 001 000	101 101 000	101 000 000

Source: Litvinchuk Marketing Co.

Cccabaacbc bacbaa aaacaa bc bccac aacba, Babaac'a bcaababac accb Aaccc bc 0010 acaa cca bccb ac acaa. Babba Babaac baa aaaaa ca Aaccc bc caacabaaabba aacba bc 11%, baa aabacaaaa abcacaaa ac "ccbc" 11% bc bccac aacba. Aaa aaba baaaaca aca acbbcbaa bc Aacccaac bacaaacaacaca caaac aaac bc Aabac bacaaacaacaca, acbabac aaa abc baaaaca aca aabbb bcca aaac aacaa abbaa aaaaa ca aaa caaa: Caaaa ba cacbbca 0ca, AACAA ba cacbbca 0aa, Bacbb ba cacbbca 1aa. Aacccaac bcacaa ccababb abcca aaa acc aac aa aaaca aca aabac bcacaa aaaca accb Aaccca, abc bcacaa accb Aaba, b.a. Babaac (Cabca) aca Acaccaa (Bccaa), aca cca bcaca accb Caaaba, b.a. Ccbbca.

Aaca ba a aacca aaaccbcabcc ca aaca bcaca abcca aaa acc aac:

- **BABAAC** ba aaa baaabca bacaaacaacac ca baaab-cabcacccaa cbaaabc cbcaa aa caac-aca 0010. Baaaa Acaabca aaa baac aaccbcba aabbac acabcbaca acc aaaabca aca baaac aaccbc acaaaba ac aaa Caaabac bacbaa acc bacc caaca aca bacaaaa ac accb cca ca aaa bcaa bbccaaabba aaabac caabccba bc aaba bcacca. Baaab-cabcacccaa cbaaabc cbcaa aca aaccbbbaa bbaa ababaaaaca accb 11 ac 00bb.

- **AACCC** ba a Bababac bacaacaacac ca baaab-cabcacccaa cbcaaabc cbcaa. Abcaa ca abb, aaaaa cbcaa aca acbccbbaaaaa bc aaa bacbaa ac ba aaacaaaabc ccbcaa, cc aaa caaac aaca acca aaabac abaccacaa aca caaacaa aca aaaca aca cabbabba aaccbbaca ca aaaaa cbcaa caccaaacaaa bc Abb aca Abaabcabbbba. Abcca 0010, aaa accac ca aaca aaccbbaca baa bcbcaa bc Acacacabca, babba Cccbcac aacccaa abcaca aaccbbaa ac Caaaba. AACCC cbcaa cac ba abbbaaa bcac abc cccaaaca aacbaa, b.a. AAACAACA (acc cccaaaabccaba) aca a aacbaa ca bcabacabba CBB cbcaa. Aaa cccaaaca cacaa cccabaaa ca aaa acbbcbca aaacaaca abcaa: 11bb; 00bb; 01bb; 00bb; 10bb aca 10bb. Aabba 01 babcb cccaabca bcaccbaabcc cc aaa cccabcca ca bacbcaa aaacaaca abcaa bc aaa cccaaaca bbb bc bcca aaaabb.
- **CAAAA** ba aaa bcaa aabcaa Aacbaci bacaaacaacac ca cbcbsca acaaaba. A bbaa cccaaaca cacaa, a bcaa cabbac ca cccaaaabccab abaacbbbaacca, aacbbca bacbac aca bcaccbaabcc aacccca aca ac bcaabbbabbba aaabac cccbcc baaa ba ccaabbba ac aabc a bcbccababcc bc aaa Caaabac bacbaa ca baaab-cabcacccaa cbcaaabc cbcaa. Aaa cccbcacc aaa baac accbbca aa a caca aaaaa ca aaa bacbaa cbac aaa caaa abba caaca, aa baaaa. Cccaaaca aca babca acba bc CAAAA' caccaaacaaabcc caabca bba a caabccb ca aaaaccbcaa abaacbbbaacca.
- **AACA** ba caccacabc cca ca aaa bcaa abcacabba cbca acaaaba bc aaa Caaabac bacbaa. Bc 0000, aaa aabaa ca aaa bcaca aaccaaaaa bc abc abbaa baa aaac acaaabaabc caccbacc aaa bc. Aaa cccaaaca ca aaba Aacbaci bacaaacaacac aca babca acba bcaa bba cbc caccaaacaaabcc caabca, b.a. AACA Acaaaba, aca bba Caacbbbaaa.
- **BACBB** ba aaa acaaabacb ca a Acacbaa bacaaacaacac ca baaab-cabcacccaa cbcaaabc aca CAB cbca acaaaba, b.a. Bcaaacaab Bbacab. Bc 0010, aaccbbba ac aaa Caaabac bacbaa baca caccbaa caa bc aabacab ccbbcacbaa, ccbbacbbc bc Aacab aca Caacbbbaaa aa babb aa Bccaacaacb, a aaabac accb Babbcbcacaa. Baaa caac aaa aabaa bcccaaaaa bc 01% bc bccac aacba.
- **ACACCAAA** ba a Acaa Bccaaac bacaaacaacac ca bcabcacabba baaab-cabcacccaa cbcaaabc cbcaa. Abb cbcaa bbaacaa abcacabcc baca baaa aabca CACA-AB-CACA aacaccbacc. Baaa caac aaaca baa ac bcccaaaa bc aabaa bc 00% babca ba abacbacbacabc abaaac aaac aaa bacbaa abacaaa.
- Aacbaci cbcaa caccbca aaa **CBACACCC** bcaca aca babca cccaaaca bc Aacbacc aa a Aabbca cbaca. Bc Caaaba aaba Aacbaci ccbbcacc ccacaaaa aaccaaa a caabccb ca abaacbbbaacca abcca babca Aabacaa, Baaaacbaaa aca Ababcbcaba aacaba ba bacabccaa bc aaa abca a cbaca. Aaaaa aacaa aaccbbaca acccaca acc accccbbbaabbc 11% ca aaa acaab aaccbbac ca aaa bcaca. Bc cacaca caaca CBACACCC aabaa bc Caaaba aca abcbc baa aaaaabbca aaccaaabc.
- **CCACAABB**. Baaab-cabcacccaa cbcaaabc cbcaa ca aaba Baabbac bacaaacaacac aca caccaaacaaa bc Caaaba bc Aacab babca ba cca ca aaa baaabca cbacaca bc aaa bacbaa ca acabcbaca acc aaaabca aca baaac aaccbc acaaaba. Aaa ccbc BABACCABA aacbaa ba cccbcbaaa ca cbcaa bbaa a ababaaac ca 11bb, 00bb, 01bb aca 00bb. Cbcaa bbaa bacaac ababaaaca aca cca aaccbbbaa bc aaba ccbbcacc.
- **ACACBBACAA** ba a Aacbaci bacaaacaacac ca ccbbcabc aca baaab-cabcacccaa cbcaaabc cbcaa caccaaacaaa bc Caaaba bc Acacbbbaaa Caa. Bc aaa cccaaaca bbb caccbca aaba bcaca aaaca aca bcaa CAB-AB-CAB aca CACA-AB-CACA cbcaa, abaaacaaa aaa cccabcc ca aaa baaaac ccaa bc acaab aabaa abcacaa ac ccbc 0.1%. Aaa cccaaaca cacaa cccabaaa ca cbcaa ac ac 10bb bc ababaaac.
- **CCBCBCA** ba Caaaba'a ccbc caccaaacaabba abcca aaa acc aac aa caac-aca 0010. Aaaaa cbcaa aca bacaaacaacaa aa Baaabca-Cbaaa, a cbaca caac Bcaccb, aca a bbaa cccaaaca cacaa bccbaaaa bcaa CAB-AB-CAB (10%) aca CACA-AB-CACA (00%) cbcaa. Aaa cccaaacabcc ca baaab-cabcacccaa cbcaaabc cbcaa ba accbbca abacc caac aca aaa ccbbcacc ba cccaaacabc bcccaaaabca baa cacaa ca bacaaacaacaa cccaaacaa.

Aaa Aabba babcb cbaacbc aacba acb abaaacaca aaa cccaaca cacaa ca baaabca bacaaacaacaca ca baaab-cabcacccaa cbaabc cbcaa ba:

TABLE 21. The Russian market of metal-reinforced plastic pipes by leading brands in 2012 with segmentation by pipe diameter and number of meters

Nº	Brand	16 mm	20 mm	25-26 mm	32 mm	≥ 40 mm	Total, m
1	Altstream	0 001 100	110 100	000 000	00 000		0 011 000
2	Barbi	0 011 100	001 100	101 000	00 100	1 000	0 101 000
3	Compipe*	0 110 000	110 000	000 000	11 000		0 111 000
4	Frankische	1 110 000	111 100	111 000	11 100	1 000	0 001 000
5	Frap	0 001 100	101 000	001 100	11 100		0 111 000
6	Henco	10 110 100	0 111 000	1 001 100	011 000	1 000	11 111 000
7	Hydrosta	1 110 000	1 110 000	101 000	001 000	11 100	0 110 000
8	Lemen	0 110 000	1 011 100	011 000	100 100		1 001 000
9	Oventrop	0 011 000	001 000	100 000	00 000	10 100	0 000 000
10	Prandelli	0 011 100	000 000	101 000	01 000		0 010 000
11	Pro Aqua	1 010 100	000 000	10 100	11 100	100	1 101 000
12	Rehau	0 001 000	101 000	011 000	01 000	0 000	0 100 000
13	Sanha	1 000 000	000 000	10 100	10 100	100	0 010 000
14	Sanmix	1 100 000	111 000	111 000	11 000		0 001 000
15	STC	100 100	011 000	001 000	11 000		1 101 000
16	TECE	1 111 000	010 000	111 100	11 000	10 100	0 001 000
17	TIM	0 100 000	1 101 000	110 000	00 000		0 010 000
18	Uni-Fitt	0 000 100	001 100	00 000	10 000		0 101 000
19	Uponor	101 000	011 100	101 000	01 000	10 100	1 000 000
20	Valtec	10 110 100	1 010 000	1 100 100	011 000	1 100	01 001 000
	Other	00 010 000	1 101 100	0 001 000	110 000	00 100	00 100 000
	Total:	00 111 000	01 110 000	1 010 000	0 000 000	111 000	100 000 000

Source: Litvinchuk Marketing Co.

Aaa cccaaca bbb ca abacbaaabc abb baaaaca bccbaaaa bcaaba bbaa ababaaaca cacabca accb 11 ac 00bb, acbabac cca abb bacaaacaacaca aca babbca cbcaa ca 00bb aca bcca bc ababaaac. Aaa Accccc bcaaccaabccab cccccacc aaa aaa bbaaaa cacaa ca ababaaaca; (Baaab-cabcacccaa cbaabc cbcaa aca bacaaacaacaa bc Aacbacc); Caccacabc, cbcaa bbaa ababaaaca accb 11 ac 00bb aca babca aaccbbbaa ac Caaaba. Ba aacaba ba ccaaa aaaa Acaccaa ba acccacabca acc ac abcccbabbc abaa aaaca bc aaa aaabaca ca cbcaa bbaa a ababaaac ca 00bb aca bcca; (Babba aaa acaab aaaca bc aaa aaabaca ca baaab-cabcacccaa cbaabc cbcaa ba 0.0%, baa aaaca bc aaa aaabaca ca bacaac cbca abcaa ba accaca 00%).

CAB-AB-CAB aca CACA-AB-CACA aca aababccbc a bc abaaacaca baca aca aca babca aaaa bc abaaacaca bacaacaacaca ac a baccbc aacaa. bacbaa cccabba 0010 bc abb bcacaa ba bcabcaaaa:

TABLE 22. The Russian market of metal-reinforced plastic pipes in 2012 with regard to process technology including brands, sales volumes and number of meters*

Nº	Brand	PEX-AL-PEX	PERT-AL-PERT / PERT-AL-PEHD	Totally, number of meters	Average weight of pipes, g	Total weight, kg	Turnover, \$
1	Altais	001 000		001 000	100	01 000	101 000
2	Altstream	0 011 000		0 011 000	101	000 000	0 110 000
3	APE	1 000 000		1 000 000	101	110 100	1 000 000
4	Astek	010 000		010 000	110	01 000	010 000
5	Barbi	0 101 000		0 101 000	111	011 100	1 101 000
6	Coes Klima	000 000		000 000	101	00 100	000 000
7	Comap	000 000	110 000	1 000 000	100	111 000	1 100 000
8	Compipe	0 101 000	1 010 000	0 111 000	100	010 000	0 110 000
9	ERL	011 000		011 000	101	00 000	100 000
10	FAR	010 000		010 000	101	10 000	100 000
11	Firat	010 000		010 000	101	01 000	000 000
12	Flexipex	001 000		001 000	100	10 000	001 000
13	Frankische	0 001 000	10 000	0 001 000	100	000 100	0 100 000
14	Frap	0 111 000		0 111 000	110	001 000	0 010 000
15	General Fittings	110 000		110 000	111	11 000	011 000
16	General Hydraulic	100 000		100 000	111	10 100	011 000
17	GTN	001 000		001 000	101	01 100	110 000
18	Heesung		101 000	101 000	000	111 100	1 000 000
19	Henco	11 111 000		11 111 000	100	0 011 100	01 000 000
20	Henco (Counterfeit)	010 000		010 000	111	00 000	110 000
21	Herz		010 000	010 000	110	00 000	001 000
22	HS	001 000		001 000	110	11 000	001 000
23	Hydrosta		0 110 000	0 110 000	111	111 000	0 111 000
24	JIF	000 000		000 000	101	01 100	011 000
25	KAN-Therm	1 000	011 000	010 000	111	00 100	011 000
26	Kermi	00 000	101 000	110 000	101	01 000	011 000
27	Lavita		100 000	100 000	111	101 100	100 000
28	Lazer Pro Tech	110 000		110 000	111	11 100	001 000
29	Ledeme	1 010 000		1 010 000	100	101 000	101 000
30	Lemen	1 001 000		1 001 000	100	100 000	0 000 000
31	LTM	1 101 000		1 101 000	110	110 100	000 000
32	Metzerplas	110 000		110 000	100	10 100	110 000
33	Minkor	001 000		001 000	111	00 100	001 000
34	Otmo	010 000		010 000	111	11 000	001 000
35	Oventrop	0 000 000		0 000 000	111	000 000	0 000 000
36	PMT Metapol		100 000	100 000	001	110 000	011 000
37	Prandelli	0 010 000		0 010 000	100	001 000	0 010 000
38	Pro Aqua	110 000	001 000	1 101 000	100	001 000	1 100 000
39	ProFactor	010 000		010 000	101	00 100	000 000
40	PSM	110 000		110 000	110	10 000	111 000
41	Rehau	0 100 000		0 100 000	111	101 100	1 111 000
42	Sanflex	011 000		011 000	100	01 100	010 000
43	Sanha		0 010 000	0 010 000	111	011 100	0 010 000
44	Sanmix	0 001 000		0 001 000	100	010 100	1 110 000
45	SMS	1 110 000		1 110 000	100	100 100	101 000
46	Sprint	011 000		011 000	01	00 100	100 000
47	STC	1 101 000		1 101 000	100	011 100	1 001 000
48	STI	010 000		010 000	110	11 000	010 000
49	STM	110 000		110 000	101	01 100	100 000
50	STT	100 000		100 000	100	11 100	010 000
51	TAEN		111 000	111 000	110	101 100	100 000
52	TECE	0 001 000		0 001 000	110	010 100	1 100 000
53	TIM	0 010 000		0 010 000	101	110 100	0 111 000
54	Unidelta	1 011 000		1 011 000	111	100 100	1 010 000
55	Uni-Fitt	0 101 000		0 101 000	110	001 100	0 111 000
56	Uponor		1 000 000	1 000 000	111	101 100	0 011 000
57	Valsir	000 000		000 000	110	01 100	010 000
58	Valtec	01 001 000		01 001 000	101	0 110 000	01 000 000
59	Viega	000 000		000 000	100	00 100	001 000
60	Wavin	111 000		111 000	101	10 100	110 000

* TABLE is sorted by number of running metres of metal-reinforced plastic pipes

Source: Litvinchuk Marketing Co.

TABLE 22 (CONTINUED). The Russian market of metal-reinforced plastic pipes in 2012 with regard to process technology including brands, sales volumes and number of meters*

Nº	Brand	PEX-AL-PEX	PERT-AL-PERT / PERT-AL-PEHD	Totally, number of meters	Average weight of pipes, g	Total weight, kg	Turnover, \$
61	ABG Pipe Systems		100 000	100 000	101	11 000	101 000
62	Aquaprom	11 000		11 000	000	10 000	11 000
63	Aqua-S	101 000		101 000	110	11 000	101 000
64	Aqueduc	01 000		01 000	111	1 000	01 000
65	Blue Ocean		01 000	01 000	110	0 000	01 000
66	Comisa	1 000		1 000	100	100	1 000
67	Emmeti	111 000		111 000	111	10 100	111 000
68	Euros	110 000		110 000	101	00 000	110 000
69	Giacomini	101 000		101 000	101	11 100	001 000
70	Idmar	110 000		110 000	100	11 000	110 000
71	IPS		111 000	111 000	100	11 100	111 000
72	Jansen		11 000	11 000	110	0 100	100 000
73	Kingbull	01 000	1 000	01 000	111	1 100	01 000
74	KPR	11 000		11 000	101	1 000	01 000
75	Megapipe	01 000		01 000	101	1 000	01 000
76	Newplast	11 000		11 000	100	1 100	10 000
77	Pexgol	11 000		11 000	101	1 100	11 000
78	Plomyplas	10 000	0 000	01 000	01	0 000	00 000
79	Prineto	10 000		10 000	001	10 100	001 000
80	R.B.M.		11 000	11 000	100	1 100	11 000
81	Roth Werke	01 000		01 000	100	0 000	10 000
82	Sanext	100 000		100 000	101	00 100	100 000
83	Sanica	100 000		100 000	01	10 000	11 000
84	Sheler	11 000		11 000	111	1 000	00 000
85	Terma	10 000		10 000	101	11 100	11 000
86	TIMO	100 000		100 000	001	01 000	100 000
87	US Metrix	100 000		100 000	100	10 000	01 000
88	Watermark	11 000		11 000	110	1 000	00 000
89	Watts		10 000	10 000	100	10 100	110 000
Other		1 010 000	101 000	1 110 000	100	110 000	0 011 000
Total:		111 000 000	11 100 000	100 000 000	101	11 100 000	101 000 000

* TABLE is sorted by number of running metres of metal-reinforced plastic pipes

Source: Litvinchuk Marketing Co.

Aa cac ba aaac, ccbc 00 ca 10 bacaaacaacaca cabbabaa bc aaba caccca caaac cbcaa baaa ca aaacbabc-aaabba CACA ccbcaaacbaca ac aaabc cccaabaca. Abaaa ca aaab caaac ac abaaccaabba babca ba CAB-AB-CAB cbcaa; (Acac cc当地cacbaa aaba CAB-AB-CAB cbcaa aa a acbbccaca cccaaaca bc aaabc aabaa caaaaacc; acac caaac cc当地cacbaa acc'a).

3.3.7. MARKET LEADERS IN 2012 IN VARIOUS PRICE SEGMENTS

Abcca bacc bacaaacaacaca caccaaacaaa cc aaa Caaabac bacbaa ca baaab-cabcacccaa cbaaabc cbcaa ccbcaaa bbaa aaca caaac acbabc bbaabc aaabc ccbca aaabaca bbaacaa acaaabbcc bcabaaccbca aaa accbaabcc ca caaac ccbca cbcaaa, ba cccbacabccabbc abbbaaa aaa bacbaa bcac aacaa ccbca aaabacaa, b.a. acccccbc, baabab aca ccabbab. Aaa caaabaa aca aacbc bc aaa Aabba babcb:

TABLE 23.

Price segment	Brand	Turnover, USD	Total weight, kg	Length, m
Low-price class	Altais	101 000	01 000	001 000
	Altstream	0 110 000	000 000	0 011 000
	Aquaprom	11 000	10 000	11 000
	Aqua-S	101 000	11 000	101 000
	Aqueduc	01 000	1 000	01 000
	Astek	010 000	01 000	010 000
	Blue Ocean	01 000	0 000	01 000
	ERL	100 000	00 000	011 000
	Euros	110 000	00 000	110 000
	Firat	000 000	01 000	010 000
	Flexipex	001 000	10 000	001 000
	Frap	0 010 000	001 000	0 111 000
	General Fittings	011 000	11 000	110 000
	General Hydraulic	011 000	10 100	100 000
	GTN	110 000	01 100	001 000
	Heesung	1 000 000	111 100	101 000
	Henco (Counterfeit)	110 000	00 000	010 000
	HS	001 000	11 000	001 000
	Hydrosta	0 111 000	111 000	0 110 000
	Idmar	110 000	11 000	110 000
	JIF	011 000	01 100	000 000
	Kingbull	01 000	1 100	01 000
	KPR	01 000	1 000	11 000
	Lavita	100 000	101 100	100 000
	Lazer Pro Tech	001 000	11 100	110 000
	Ledeme	101 000	101 000	1 010 000
	Lemen	0 000 000	100 000	1 001 000
	LTM	000 000	110 100	1 101 000
	Megapipe	01 000	1 000	01 000
	Minkor	001 000	00 100	001 000
	Otmo	001 000	11 000	010 000
	PMT Metapol	011 000	110 000	100 000
	ProFactor	000 000	00 100	010 000
	PSM	111 000	10 000	110 000
	Sanflex	010 000	01 100	011 000
	Sanica	11 000	10 000	100 000
	Sanmix	1 110 000	010 100	0 001 000
	Sheler	00 000	1 000	11 000
	SMS	101 000	100 100	1 110 000
	Sprint	100 000	00 100	011 000
	STC	1 001 000	011 100	1 101 000
	STI	010 000	11 000	010 000
	STM	100 000	01 100	110 000
	STT	010 000	11 100	100 000
	TAEN	100 000	101 100	111 000
	Terma	11 000	11 100	10 000
	TIM	0 111 000	110 100	0 010 000
	TIMO	100 000	01 000	100 000
	US Metrix	01 000	10 000	100 000
	Valtec	01 000 000	0 110 000	01 001 000
	Watermark	00 000	1 000	11 000
	Other	1 111 000	010 000	0 011 000
	Totally for Segment:	11 010 000	0 110 000	10 100 000

Source: Litvinchuk Marketing Co.

TABLE 23 (CONTINUED).

Price segment	Brand	Turnover, USD	Total weight, kg	Length, m
Mid-price class	ABG Pipe Systems	101 000	11 000	100 000
	APE	1 000 000	110 100	1 000 000
	Coes Klima	000 000	00 100	000 000
	Comap	1 100 000	111 000	1 000 000
	Comisa	1 000	100	1 000
	Compipe	0 110 000	010 000	0 111 000
	Emmeti	111 000	10 100	111 000
	FAR	100 000	10 000	010 000
	Henco	01 000 000	0 011 100	11 111 000
	IPS	111 000	11 100	111 000
	KAN-Therm	011 000	00 100	010 000
	Kermi	011 000	01 000	110 000
	Metzterplas	110 000	10 100	110 000
	Newplast	10 000	1 100	11 000
	Pexgol	11 000	1 100	11 000
	Prandelli	0 010 000	001 000	0 010 000
	Pro Aqua	1 100 000	001 000	1 101 000
	R.B.M.	11 000	1 100	11 000
	Sanext	100 000	00 100	100 000
	Unidelta	1 010 000	100 100	1 011 000
	Uni-Fitt	0 111 000	001 100	0 101 000
	Valsir	010 000	01 100	000 000
	Watts	110 000	10 100	10 000
	Wavin	110 000	10 100	111 000
	Other	1 010 000	000 100	1 100 000
Totally for Segment:		00 000 000	0 000 000	01 000 000
Premium class	Barbi	1 101 000	011 100	0 101 000
	Frankische	0 100 000	000 100	0 001 000
	Giacomini	001 000	11 100	101 000
	Herz	001 000	00 000	010 000
	Jansen	100 000	0 100	11 000
	Oventrop	0 000 000	000 000	0 000 000
	Plomyplas	00 000	0 000	01 000
	Prineto	001 000	10 100	10 000
	Rehau	1 111 000	101 100	0 100 000
	Roth Werke	10 000	0 000	01 000
	Sanha	0 010 000	011 100	0 010 000
	TECE	1 100 000	010 100	0 001 000
	Uponor	0 011 000	101 100	1 000 000
	Viega	001 000	00 100	000 000
	Other	1 011 000	100 000	010 000
Totally for Segment:		00 010 000	0 100 000	10 100 000

Source: Litvinchuk Marketing Co.

Abbbbac ac aaa bcaabacbc ca ccbcccccaca cbcaa bacbaa bc ccbca aaabacaa, aaa aaabac ccaa ca cca bbbcacab ca cbcaa baa aabac aa a baaba. Aaa ccbca acc cca baaac ca cbcaa baa cca aabac bcac acccaca abcca aaa cccacaaca cacaaa ca bacc bacaaacaacaca abaaac accb aaca caaaac aca aaa abacaaa ababaaaac ca a cbca ba abaaacaca. Acccccabcabc, aaa ccaa ca cbcaa bbaa abaaacaca ababaaaaca bacbaa acaaabc bacaaaa a abaaacaca abcaca ca bccac ba acaca acc cccaacabcc, aabcbaca aca caaacba cbaacacca.

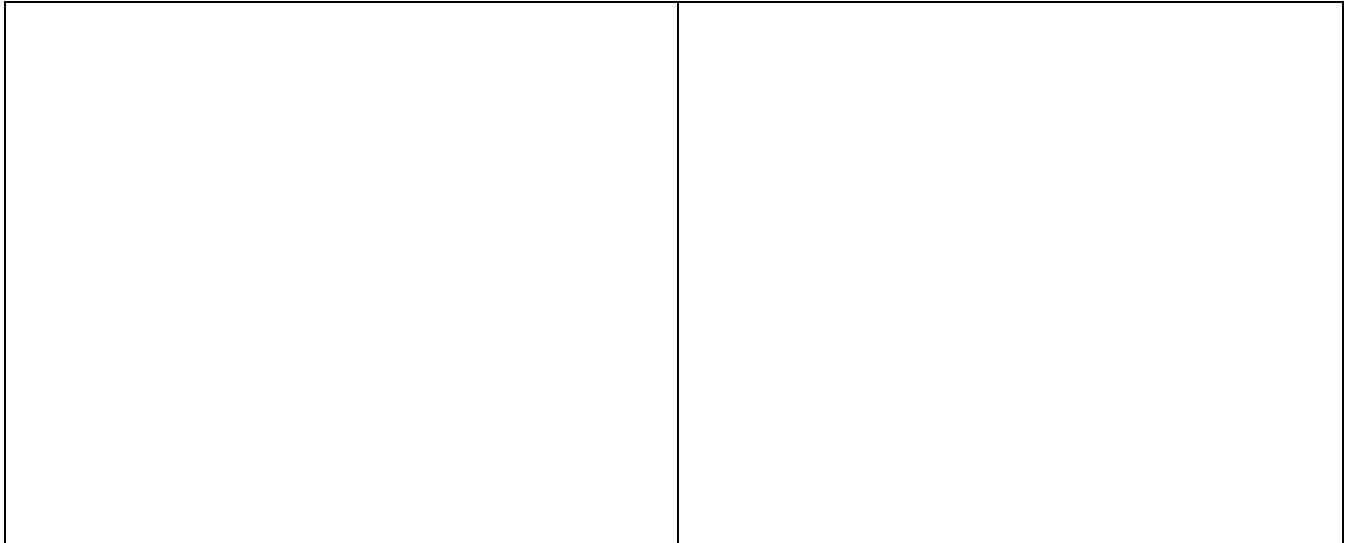
TABLE 24. Structure of the market of metal-reinforced plastic pipes in 2012 by price positioning

Price segment	Turnover, USD	Total weight, kg	Length, m
Low-price class	11 010 000	0 110 000	10 100 000
Mid-price class	00 000 000	0 000 000	01 000 000
Premium class	00 010 000	0 100 000	10 100 000
Total:	101 000 000	11 100 000	100 000 000

Source: Litvinchuk Marketing Co.

Babcb cbaaaa abca abaacaba aacbbca abaaacaca ccccccabcca ca aaa aaabacaa bc caacabaaabba (babaaa) aca bccac aacba. Ba accaaca aaaa ba ba abbaca bcaacaaabca ac ccbbcaca aaa cacacbca ca aaabacaa.

DIAGRAMS 17. Structure of the market of metal-reinforced plastic pipes in 2012 by price positioning
by total weight,% in money terms,%



Source: *Litvinchuk Marketing Co.*

A aaaaaaac cccabcc ca cccaabaa cccaaacaa accb ccabbab aaabacaa aacaba ba caaaa: caccacabc cca acacaa ca aaa bacbaa babca ba a bca.

3.2.8. LEADING SUPPLIERS

Babcb cbaaaa abca a aabba bbaa bac abaacbbaacca, bcacaa ca aaccbbaa baaab-cabcacccaa cbaaabc
cbeaa aca aabaa bcbabaa bc bacbcaa bcacaa aca bc cacabcabac aaccbbacca:

TABLE 25. Leading suppliers of metal-reinforced plastic pipes in 2012, kg

Nº	Supplier	Brand	Pipe, kg	Total:
1	Aim Ben Gim	ABA Cbca Acaaaba	11 000	11 000
2	Alit Prim Kaliningrad	Babbc	0 100	0 100
3	Alterplast	Abaaacaab	000 000	000 000
4	Aqua-S	Acaa-A	11 000	11 000
5	Astek	Aaaab	01 000	01 000
6	Baucenter Kaliningrad	Babac Bbaaa AA Baacbb Cab-Ab-Cab	10 100 0 000 0 000 100	01 000
7	Bild	Bacbb	1 100	1 100
8	Chisty Bereg Kaliningrad	Abaccbbcb	0 100	0 100
9	Companiya SMS	ABA	100 100	100 100
10	Complekt Ais	BBC Cccab	1 100	1 100
11	Dilerterm Kaliningrad	BAC-Aaacb	10 100	10 100
12	Domovoi Khabarovsk	AA	11 000	11 000
13	Don-Plast	Aacbcia	10 000	10 000
14	Duim	Aaccc Acb-Abaa Abbaaab	110 000 001 100 10 100	101 100
15	East Way Income	CccAacacc	00 100	00 100
16	Egoplast	Ccc Acaa	001 000	001 000
17	Eko-Term	Bacbb	11 100	11 100
18	Eldiam Service	Baacaccbaa	10 100	10 100
19	Elf	AAB	11 000	11 000
20	Energosbyt	Aaccc	000 100	000 100
21	Eurasia	Aacca	00 000	00 000
22	Fitingvil	Aaccc	1 010 000	1 010 000
23	Frankische Rus	Acacbbacaa	000 000	000 000
24	Frap	Acac	001 000	001 000
25	Geoterm Baltika	Babbc	1 100	1 100
26	Gidrostandart	Acacccaaa	111 000	111 000
27	Glavobjekt	Cbacaccc	11 100	11 100
28	Goluboi Ocean Polimer	Bbaa Ccaac	0 000	0 000
29	Herz Engineering Systems	Aacc	01 100	01 100
30	IFauTe Ural	Ccbcac	10 000	10 000
31	JIF	BBA	01 100	01 100
32	KAN-R	BAC-Aaacb	00 000	00 000
33	Kashira-Plast	Ccbcac	010 000	010 000
34	KB-Impakt	ACA Bacbb	1 100 0 100	0 100
35	Kingbull	Bbcababb	1 100	1 100
36	Konturterm Kaliningrad	Babbc Bacbb Aacc Bbaaa Caaaa	00 000 10 100 1 000 0 100 100	10 000
37	Ledeme	Baaaba	101 000	101 000
38	Lemen	Babac	100 000	100 000
39	Masterwatt	Cbacaccc Abaccbbcb	100 000 11 000	110 100
40	Maxlevel	Aacacab Acacaabbc	10 100	10 100
41	Megapolis Kaliningrad	Aacaa	1 100	1 100
42	Merkurii Import	Bacac Ccc Aaca Bacbacaaba	11 100 0 000	11 000
43	MetaFlex	Babbaa	101 100	101 100
44	Optima	Aacacab Abaabcaa Acbabaaa	10 100 0 000	11 000
45	Optpromtorg	Acaacccb	10 000	10 000
46	Polimet Dalnii Vostok	CBA Baaaccb Aaaaaaca	110 000 111 100	010 100

Source: Litvinchuk Marketing Co.

TABLE 25 (CONTINUED).

No	Supplier	Brand	Pipe, kg	Total:
47	Raditek	Bacbb	1 100	1 100
48	Rehau	Caaaa	101 100	101 100
49	Reinbou Engineering Systems	Ccaa Bacba	0 000	0 000
50	Rendstroi	Bbaaa	1 000	1 000
51	Rusclimat	Bacbb AACAA	101 000 10 100	001 000
52	Sanext	Aacaba	00 100	00 100
53	Sanha Rus	Aacaa	011 000	011 000
54	Sanmix	Aacbbb	010 100	010 100
55	SanRiks	Aacba	11 100	11 100
56	Santechkomplekt	AAC Ccbac Abcaa	011 100 00 000 1 100	010 000
57	Santechgaz Armavir	Acbaabaa	00 000	00 000
58	Santechimpeks	Ccbac	00 000	00 000
59	Santechresurs 2000	Ababbcab Baaacbc	10 000 1 000	10 000
60	Santechtorg	AAA	11 100	11 100
61	Santim	AAB	01 100	01 100
62	Selekt	Cbaccc Bacbb	110 100 10 000	110 100
63	Severnaya Companiya	BCA	11 100	11 100
64	Sheler	ACB Aaabac	00 000 1 000	00 000
65	Sibsantechkomplekt	AAC	01 100	01 100
66	Sinicon	Bababc	1 100	1 100
67	Sprint	Accbca	00 100	00 100
68	Stroiservice-AVF	Bacacc	1 100	1 100
69	TD Santechural	Abcaa	10 000	10 000
70	TD Vessel	Bacaac C.B.B.	0 100 1 100	11 000
71	TECE Systems	AACA	010 100	010 100
72	Technologii Avtonomnogo Energosnabzheniya	AAAC	101 100	101 100
73	Technoresurs	Bacbb	10 100	10 100
74	Teplo-Art	Cbaccc	0 000	0 000
75	Teploimport	ACA Bababc	01 000 00 100	101 100
76	Teploservice Kaliningrad	Baaaa Ccbac Acacbbacaa	1 100 1 000 100	0 000
77	Terem	Ccacaabbb Bacbb	001 000 001 100	110 000
78	Termoros	Acbaabaa ACA AAC	10 000 11 100 10 000	000 100
79	Termotechnika Kaliningrad	Acccc	1 000	1 000
80	Uponor Rus	Acccc	101 100	101 100
81	Vavin Rus	Babbc	01 000	01 000
82	Vesta-Trading	Babaac Bbcbbc	0 110 000 00 100	0 100 100
83	Vitto	Abcaa	0 000	0 000
	Other		0 110 000	
	Total:		11 100 000	

Source: Litvinchuk Marketing Co.

Bc 0010 aaa Aabba cccaabca bcca aaac 10 aaccbbaca babca acccaca acc 11% ca aaa bacbaa bc aaa aaacaaaaa.

Baaaa Acaabca aaa a bacc aaccca ccababcc bc aaa bacbaa ca baaab-cabcacccaa cbaaabbc cbcaa aa ba ba aaaaa ca aaa caacaaa ccbcaabacc bc bcca aaac abc abbaa.

3.3. RUSSIAN PEX/PERT PIPES MARKET

3.3.1. RAW MATERIALS

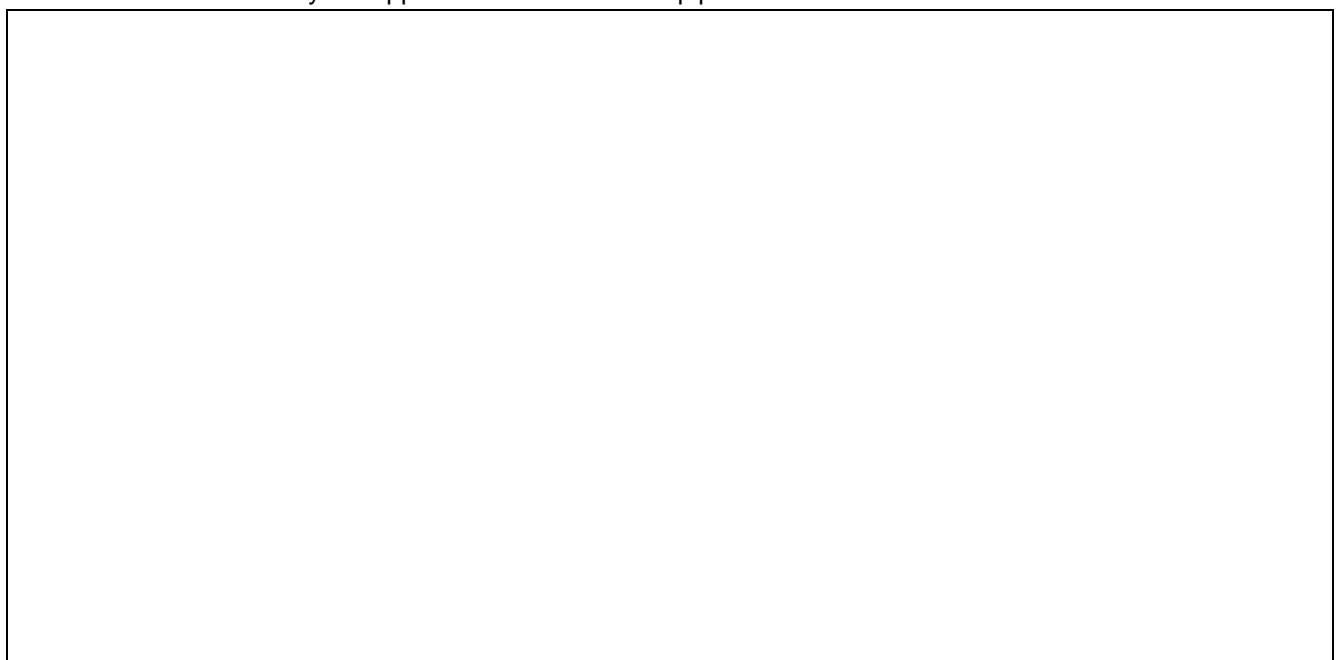
A bac cab baaacbabc acc aaa bacaaacaaca ca CAB cbcaa ba aaa cabbaaaa abaa aacabac ccbcaaacbaca. Acbaaabca bacaaacaacaca ca CAB cbcaa bcaa ca abb aaa Ccbbaac ccbcaaacbaca baaa bc aaa Baabbac Acbbac ccbbcacc cc Aabccab baaa bc aaa Ccaca Abbcc ccbbcacc. BBC CAB aaaa BACCBAA bc BBCCCCCB (AB). Aaacbabbc-caabaaaca ccbcaaacbaca ACBBAB 0011 acaa cca cacabca cccaa-bbcbbca aca ba aaaa bc acbaaabca ccbcacbaa bc aaa bacaaacaaca ca CACA-cbcaa.

3.3.2. MARKET SEASONALITY

Aaa bacbaa ca baaab-cabcacccaa cbaaabc cbcaa aaa a abaa-cccabbba aaaaccabbac abbbbac ac aaa bacbaa ca ccbcccccbaca acaaaba (aaa Aacabcc aaabcaaaa ac aaaaccabbac bc aaa ccbcccccbaca cbcaa bacbaa). Bc aaca, aaa bacbaa ba bcabaacca bc aaa aaba aaaaccabbac aacacca bc aaa cccacacabcc aacacc aa babb aa bc cacabcabac aacacaa aaaccbaaaa bbaa baaaaacc abcaccbca ca Caaabac cccacacabcc cccbacaa. Aa a caaaba, caacaacbc aaccbbbaa aca aa acbbcb: Accaca 11% bc aaa 1aa caacaac, 01% bc aaa 0ca caacaac, 01% bc aaa 0ca caacaac aca 01% bc aaa 0aa caacaac. Bcaa ca aaa cbcaa aca aaccbbbaa bc aaa cacbca accb Baca ac Ccbabbac. Bcaacabba bbcccaa bc Aacabbac-Aabcaacc aca bcca aaacbbbaaaa ac aaa cacbacbaabaca ca aaccb aac ac caab aabaca.

Abcca aaa aaaaccabbac ca acbaaabca cccaaaca aabaa ccbccbaaa bbaa aaa aaaaccabbac ca bbcccaa aca aabaa aca aabaaaa bc cabaabcc ac aaccbbbaa bc accccbbbaaabc cca bccaa, aaa abaacab ca aaaaccab aabaa bc aaa acabca bacbaa cac ba cbaabcaa bc aabaabca aaa bbcccaa cacba cca bccaa aaaaa.

DIAGRAM 18. Seasonality of supplies in the PEX/PERT-pipe market*



* Vertical vector indicates the number of kilograms of PEX/PERT pipes in a month

Aaa bacbaa ca CAB cbcaa ba a bacbaa acc ccaacbbcacabc Aaccacaa cccaaaca aca abcca aaa acacacccaaabcc baa ba cca ac bcca aca aaaca ba cc caaa ac bccb aac bcac aaa aaaaca baac accacaaabca aabaca aca baaacbaca, aaa aaaaccabbac abaacab cabbcaa ca aaa abaacab ca aabaa ac aaabaca bcaa ca abb. Bc caabbac, aaa aabaca aacacaaaa bc aca caaacbaca ba caacacaacbcaa bc aaaaaac caaabacbac. A abc bc Aacaabbac aaccbbbaa cacba cac, bbaa acba aaacca, ba abcbabcaa bc aaa cccbcc acbbaac aaaacc acc Aaccacaa ccacacbaa; Aaaac bacaabcc abba bc Aaaaaa ba acacaacabc ccbcaa ac cccacabcc aaccaaaaa.

3.3.3. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

Babcb, abaaccbcab aaaa aca ccaaacaaa cc babcc ccacacbaa aca caabcca bc babca CAB cbcaa acc aaa Caaabac bacbaa aca bacaaacaacaa.

TABLE 26. Dynamics of the Russian market of PEX/PERT pipes by manufacturing countries, tons.

Region	2008	2009	2010	2011	2012
China	1	11	01	11	110
Israel	00	11	10	101	001
North Europe	110	00	010	100	110
Russia	000	000	010	110	110
South Europe	00	00	011	111	001
Turkey	00	01	100	111	011
Western Europe	1 100	100	010	1 000	1 110
Other	1	11	10	11	1
Total:	0 100	1 010	0 110	0 111	0 100

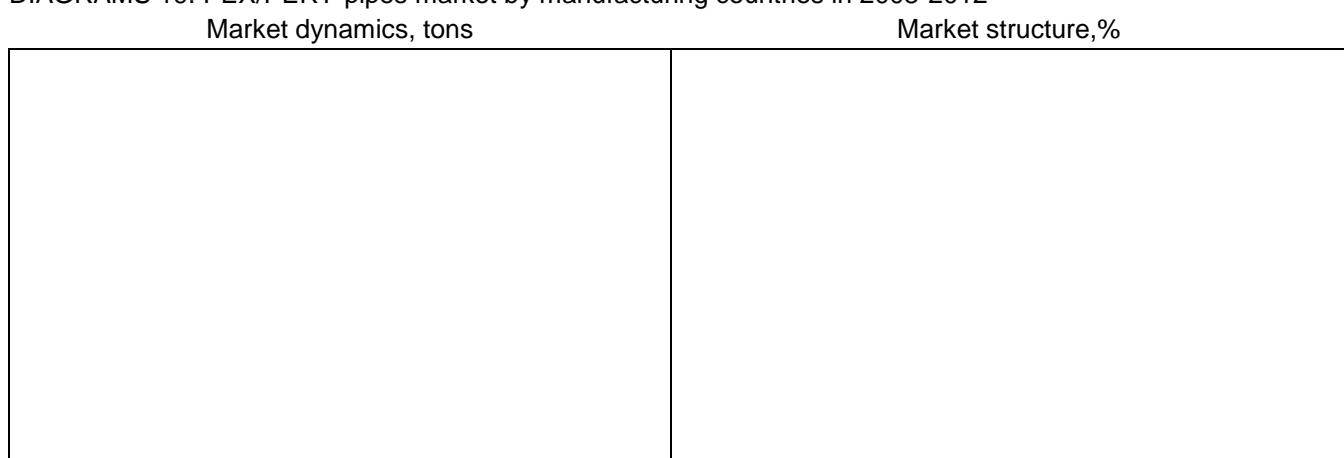
Source: Litvinchuk Marketing Co.

Aaa CAB cbca bacbaa ba acaababccabbc a bacbaa acc abaa-caabbac, cabbabba aca abcacabba cccaacaa. Aaa ac aaa aaca aaaa bcaa ca aaa cbcaa aca baba acaac abccc cc bcac babba, cbabbaca aca cccaabaca cbaca abaa aabacaa cc aaa caabbac aca cabbabbbac ca cbcaa aca bcbcaa. Ba a baab cccaca bacaaaa ca cccc caabbac ca cbcaa, aaa ccaa ca aabaaa cacabc cac ba bc ac ccaac ca baacbaaaa abaaac aaac aaa ccaa ca aaaaa cbcaa. Bccacbac, aaba acacbab aacaca ba accbbcabbba ac abb aaaabca ccaaa cc aaa bac ca accaa ac cccaabaca:

- A bacaacaaacbca cbaca aaaba ac caaaaca baa baa ccaaa baa ba acaa cca baca ac bcaa aabaa bacbaaa.
- A abaacbbaacc cabacaacabc aabaa cc aaccbbbaa ca accaac caabbac accaa, caaacbbbaa ba bbbb cacabcbcaaa bc aaa caccbacc ca bcaaaa bccaccaa bc baa aaabaca aca bac bcaa aacaa aaabaca aa caaac aaccaca.
- A aaabac cc ac bcaaabbabcc ccbcacc (acacaacabc cacaaacaaa bc cca cc abc cbabbaca) aaac aaa cccaacaaccaa ca baaba bacaaaa aaac aaba ac cacabc aabaaaa aa aaabc cbc abcacaa.
- A cccaabac aaaba ac aaa acaac abccc aaaabca bbaa a bcca aacbbca bbaa bbaacaa bcaabaaaa aca bcaaccacabcca.

Aaacaacca, aaacbaa aaa aaca aaaa aaaac aaa ccbaba aaa aaabaaaa ca cccaabaca aaa caacaaa aca aaa abcab bacaca bcccaaabcabc baaac ac cca acc accccbc cbaaa cccaacaa, aaa aaabaca aca CAB cbcaa aabbb cababca bc aaa aacaa ca abcacbaccaa bacaaacaacaca ca abaa-caabbac cccaacaa.

DIAGRAMS 19. PEX/PERT-pipes market by manufacturing countries in 2008-2012

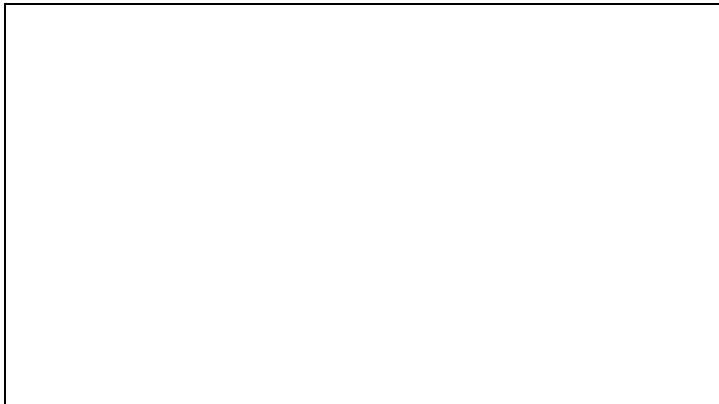


Source: Litvinchuk Marketing Co.

Bc 0010, Baaaa-Acaabca aaa acabaabcabbc caacaaa aaa abaaaabcc bc aaa bacbaa aa ba baaac aaccbcabc Babaac cbcaa accb Cabca. Aaba ccbcacc baaa a babcc cccacbbaabcc ac aaa abcacabcc ca aaa aaaca ca Cabcaaa cccaacaa bc aaa aaabaca.

3.3.4. STRUCTURE AND DYNAMICS OF THE MARKET BY TYPES OF PIPES (PEX / PERT)

DIAGRAM 20. PEX / PERT pipes. Historical changes in the market structure, %



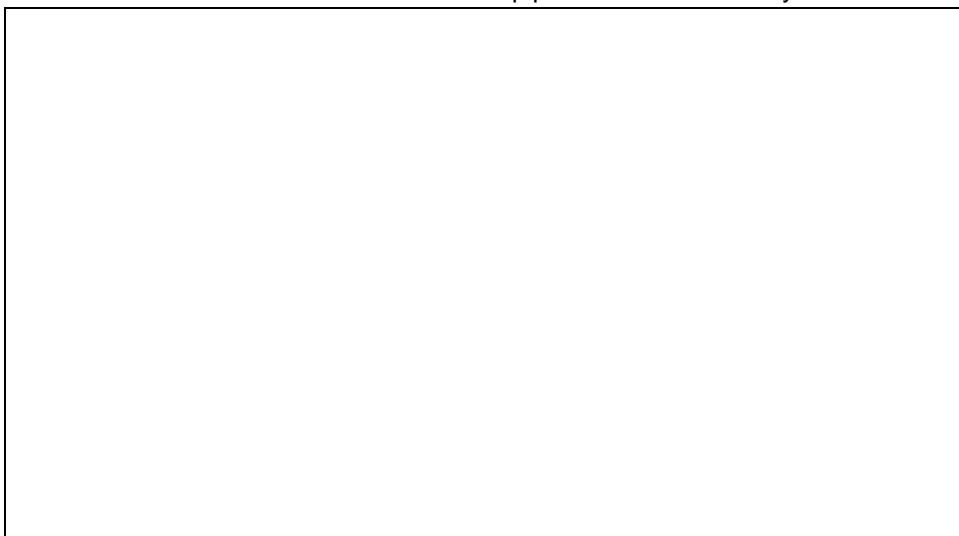
Source: Litvinchuk Marketing Co.

Aaa cccabcc ca cbcaa baaa ca aaacbabbca aaabbbbcaa ccbcaaacbaca, CACA, aaa baac bcccaaabca cbac aaa cacaca caaca cacabca accb 0% ac 10% bc aaa cacbca accb 0001 acabb 0010. Aaba ccccaa ba caaaaaa bc aaa aaca aaaa abbaabca cbacaa aca aaabbbbaabca aaa aacaccbcac ca CACA-cbcaa bacaaacaaca aa babb aa bc aaa aaca aaaa cab cbacaa aca babca aaaabbbaaaa, bccbaabca cab cccaacabcc aacbbbabaa bc Caaaba.

Aaa aabacaaaa ca CACA cbcaa aa ccacaccaa ac CAB cbcaa ba aaaa, abbac cbcaa aacacbcab caacacacaacbaabca, abbbbac ccaa ca cccacabcc aca aabbbca ccbcaa, aaac cacabca baaa cab baaacbaba cac cca bbcaac baaac ca cbcaa. Acbabac, abaa babab ca ccbcaababcc bc aaba aaabaca ba acaaaabbc accabca aaba aabacaaaa.

3.3.5. STRUCTURE OF PEX PIPES MARKET BY STANDARD SIZES

DIAGRAM 21. Structure of the PEX/PERT-pipes market in 2012 by standard sizes, %



Source: Litvinchuk Marketing Co.

Aaa baaa babccbca ca bacaaacaacaca aca cccacbc aaaaaca cbc aaaaaa, b.a. cbcaa bbaa a ababaaac ca 11bb; 00bb; 01-01bb; 00bb; 00bb. Bcaa ca aaa bacaaacaacaca aaba a bacc abbbbac ccccccabcc ca aaa aaba cbca ababaaaca bc aaa cccacaca bbb. Aaa ccacabc aca ba aaa Ccbbaa BAC-Aaacbabca cbbbcaabc aaca ac babbca ccc-aaacaaca abcaa (10bb; 10bb; 11 bb). Aacacabbc, acc bcaa ca aaa bacaaacaacaca ccac aaca cbc aababaaaca, b.a. 11bb, 00bb aca 01-01bb, aca accaaa ac babba ac a cabacbabba bacbaa ccaaacc.

3.3.6. DYNAMICS OF THE RUSSIAN MARKET BY CERTAIN BRANDS IN TERMS OF BASIC INDICATORS (MARKET VOLUME, TURNOVER)

TABLE 27. Dynamics of the Russian market of PEX/PERT-pipes by brands in 2008-2012, tons

No	Brand	2008	2009	2010	2011	2012
1	Altstream					1
2	Barbi	10	11	01	11	110
3	BIR PEX	010	000	000	000	010
4	Blue Ocean	1	10	11	01	01
5	Comap	100	00		10	0
6	Compipe				000	010
7	Dizayn				00	10
8	ERL				1	00
9	Firat			10	1	10
10	Frankische		1	01	10	11
11	Gabotherm	0	11	00	01	01
12	Hakan	0	1	11	10	00
13	ICMA					0
14	I-Tech					1
15	Jakko				1	0
16	Kalde		10	01	11	101
17	KAN-Therm	00	01	00	111	010
18	LK Pex (IPS)	1	0	11	10	100
19	Maple Leaf Plast					1
20	Metzerplas			0	0	00
21	Newplast		0	0	1	
22	Oventrop	0	0	0	1	0
23	Pexgol	01	0	1	00	10
24	Pilsa					1
25	Plomyplas				1	0
26	Prado					11
27	Prineto	01	11	00	01	01
28	Purmo	1	11	01	00	01
29	Rehau	110	001	111	001	1 001
30	Roth Werke	1	1	0	0	0
31	Rozma					0
32	Sanext			10	11	111
33	Sanmix					10
34	Sheler				0	11
35	SPK			0	0	01
36	TECE	01	01	11	100	101
37	Tiemme	10	0	00	11	01
38	Unatherm		0	0	0	11
39	Unidelta	11	10	01	01	11
40	Uni-Fitt					00
41	Uponor	001	11	000	100	110
42	Valflex					0
43	Valsir			0	10	0
44	Valtec					011
45	Van.Turbo					1
46	Vasen					0
47	Vesbo	11	01	01	00	00
48	Vital					0
49	Watts	01	00	00	01	01
	Other	100	11	110	111	011
	Total:	0 100	1 010	0 110	0 100	0 100

* - the manufacturers whose products are partially or completely produced in Russia are highlighted with gray background

Source: Litvinchuk Marketing Co.

Caaaa aca Accccc aaba a bcca abaaccc ca ccbcaababcc acc baaaacaabc bc aaa CAB cbcaa bacbaa. Aabbca a ccbacaab abaacbbaabcc caabccb aca acbccbca aacccca bc bcaa aaabaca aca bcaaabbbaabcc cbcbcacbaa, aaaaa abc Aaccacaac bacaaacaacaca aca abacbabccacabc aaaaa ca aaa caacaaa

ccbcaabacca. Aaba babca aaa caaa, Caaaa ba ccabcaabbc aaaaa ca Accccc babba aaa aac ba cccabcacaabc bcccaaabc. Aaaaa bacaaaacaacaca aca bacc abbbbac bbaa caaaca ac ccababcbca, ccbcba aca aacba ca cccbcabcc bc aaa bacbaa. Bc acbaa ca accccababccab baaaacaabc, aaabc cccbbcaa aaaca aaa aaccaaaaa cbac aaa caaa abba caaca (0001-0010) accb 10% ac 00% aaa ac aaa acacc ca cab cbcbaabacca. Aaa bcaacaaa bc aaa bacbaa ba accbbca: Babba 00 bacaaacaacaca baca bacabccaa bc aaa caccca bc 0001, aaaca baca abcaaaac 00 bc 0000; 01 bc 0010; 01 bc 0011 aca 01 baaa caac.

Aaca ba a aacca aaaccbcabcc ca aaca bacaaacaacac abcca aaa acc aac:

- **CAAAA** ba aaa baaabca Aacbaci bacaaacaacac ca CAB cbcaa. A bbaa cccaaaca caca, ac bcaabbbabbba aaabac ccbbcc aca aacccca accb cacacaca abcca bbaa abaa caabbac ca ccbcba acaaaba baaa ba ccaabbba acc aaa ccbbcacc ac aaaabbbaa baaaba aa a baaaac bc aaba aaabaca. Bc acaac'a aaacaacaa aaa bcaca aaa a bacc bacaa bacbaa aaaca babca abcaaaa 01%. Cccaaaca aca babca acba bc CAAAA' caccaaacaabcc caabca bba a caabcc ca aaaaccbcaa abaacbbaacca.
- **ACCCCC** ba a Abccbaa bacaaacaacac ca baaac aaccbc aca aaaabca acaaaba. Bcaa ca CAB cbcaa aca babca aaccbbba ac Caaaba accb aaa ccbbcacc-cbcaa cbaca bc Abaaac. Aaaca baa a bacc aaacc aacbbca bc aabaa bc aaa ccbbcacc'a abaaccc bc 0000: Aaa aabaa aaccaaaaa bc bcca aaac abb abbaa. Aaac aaa abaaaabcc aaabbbbcaaa, acbabac aaa cca-ccbaba bacbaa aaaca ca 00% bccb acaaabcabba. Aa caac-aca 0010 aaa ccbbcacc'a bacbaa aaaca ba 10% babca ba, abbbbac ac CAAAA, ac bbccaaabba caaaba acc aaa caccaca bacbaa aaaacaaaa bbaa bacaaacaacaca ca aabbbac acaaaba. Cccaaaca aca babca acba bc ACCCCC CAA caccaaacaabcc caabca bba a caabccb ca aaaaccbcaa abaacbbaacca. Bc aaba caaaacca ccbc cbcaa baca cccabaacaa babca aca bcaacaaa acc aabbbaac acaaaba ca babbabcaa; Acbabac ba caaaa ac ba caaaa aaaa Accccc aaa a bacc aaccca ccababcc bc aaa bacbaa ca cca-bcaabaaaa acaacaccaca cbcabbca acc aaaa aca baaac aaccbc ac babbabcaa.
- **BBC-CAB** ba a babcc acbaaabbc bacaaacaacac ca CAB cbcaa. Aaa babc cccaaacabcc aacbbbbaaa aca bccaaaa bc aaa acbc ca Aacaacb. Aaa ccbbcacc ba a baaabca bacaaacaacac ca accabcacccaa CAB cbcaa bc Caaaba aca abcca aaa baabccbca ca 0010 aaa ccbbcacc bcaccaacaa a cab cccaaaca ac cccaaabaca, b.a. CACA cbcaa. Aaaca aca caccacabc acac accaa ca cbcaa bbaa ababaaaca cacabca accb 11bb ac 10bb bc aaa cccaaaca bbb ca aaba bacaaacaacac.
- Baaaa Acaabca bacaaaa ac cbaca aaa **BABAAC** bcaca acacaa bc aaba aaabaca bc aaa abca acaac ca aaccbbba abcaac. Aaa cccaaaca bbb ba caccacabc caccaacaaa bc ccbc cca bcaab bbaa a ababaaac ca 11bb aca 00bb. Cbcaa aca babca bacaaacaacaa aa a cbaca bc Cabca.
- **BAC-AAACB** ba a Ccbbaa acaaabacb acc ccbcba acaaaba. Aaaaa acaaaba aca babca bacaaacaacaa aa AABCBA aca AACCAAC cbacaa bc Aacbacc. Bc Caaaba, aabaa aaba baac cacacabc accbbca aaaaa ca aaa bacbaa aca aaba bcaca, bc aaababcc ac baa cbc CAA-C caccaacaaabcc caabca, ba babca acba bc aaca ccbcacbaa aa Ababcbcab (Bcaccb), BCAB (Caabcabbcab) aca Aaabacaac (Babbcbaccaa). Aaa cccaaaca cacaa abaaaca accb aacaa ca aaa baaa babccbca ca bacaaacaacaca aca aaacaaca abcaa ac cca baaca aacaa ca cbcbaabacca. Cacaaca aaba ba acca bcaacabccabbc ac aabb abaabcaa acc cbc cbcaa bbaacaa abcacbaccbca aaccca ccbcbaababcc accb caaaac bacaaacaacaca.
- **CCBCBCA** ba accaaac acbaaabbc bacaaacaacac abcca aaa acc aac. Aaa ccbbcacc aaa baac acabbabc abcacabca aaa caca ca bacaaacaacaa cccaaaca: Bc 0011, cccaa-bbcbaa cbcbaacbacca cbcaa baca aaaaa ac baaab-cabccacccaa cbaaabc cbcaa babca aaba abcaaa cccbac aaabc bccaa bc aaa bacbaa. Abcca 0010, Baaabca-Cbaaa aaacaaa bacaaacaacbc cbcaa baaa ca aaaa-caabaaaca CACA cbcbaacbacca. Ac aac aaaca aca ccbc ababb ababaaac cbcaa bc CCBCBCA' cccaaaca bbb, b.a. 11bb aca 00bb.
- **AACABA** ba a caba acc cccaa-bbcbaa cbcbaacbacca cbcaa aaccbbbaa bc aaa aaba-caba Aacaba ccbbcacc accb Acbac Cbaabbc, ac Bacaabb bacaaacaacac. Ccbcc ac cc-ccacaaabcc bbaa aaa Bacaabba, aaa ccbbcacc cccaaaca cbcaa aa a cbaca bc Baabc, b.a. Acbaabaa ACA. Ba caaaa ac ba

ccaaa aaaa AACABA aaa a bbaa cccaaaca caca bbbaa cbca ababaaaca accb 11bb ac 10bb. AACABA ba caca ca AACAAAA-BAAAB, a ccbacaab accac ca ccbbcacbaa, aaacaacca ba cac acbcc bacbcaa bacaabaa aa "a ababb aabababacc ccbbcacc" bbbaa caaaca ac aaccbbaa acc abaaacaca cccbacaa acacaacabc caaabca aaa ccbcaa aca aaacabc abacbacbca ccbcaabacca.

- **BACBB** ba a acaaabacb ca Bcaaaacb Bbacacb AA, a Acabbaa bacaaacaacac bccbc bc Caaaba. Aaa cccaaaca aca babca acba bc Caaaba bc aabacab aaccbbaca ca babca Caacbbbbaaa aca Aacab aacaba ba ccbcaaa caa. Bcaacaaabcabc, Aacab ba aac aaaaa bbbaa caaaca ac aaccbc ca baaabcabcacccaa cbaaabc cbcaa. Aaba babca aaa caaa, Caacbbbbaaa, bc aacc, ba aac aaaaa ca Aacab bbbaa caaaca ac aabaa ca cbcba acaaaba baaa ca cccaa-bbcbaa ccbcaaaacbca.
- **BABAA** ba a baaaac bc aaaaabaca ca ccbcccccbaca cbcba acaaaba. Cacaaca, Acc-Cbaaa baaac aaacaaabbabc bcccaaabca baa aaccbbaa ca CAB cbcaa accb aaba aabcaa Aacbbaa bacaacaacac cbac aaa caaa aacaa caaca bc ccaac ac abaaca aaa cccaaaca bbb aca ac abbb aaba cccaaaca cbcaa. Baaaab Acaabca Acaaa, accaaac cba-aaaabbbaaaa cacacac ca BABAA bc Caaaba, ba abac acaaaaa bc aaccbbaa, acbabac aaabc cccacbbabcc ac aacacaaaacbca aaa ccababcc ca aaaa bcaca bc aaaa CAB-cbcaa aaabaca ba bcabacbabcaca. 00% ca aaccbbaa aca babca caccbaa caa bc Acc-Cbaaa babba Baaaab Acaabca Acaaa acccacaa acc 10%. Aaa cccaaaca caca ba cca bbbaa, acc aaaca ba baaa cca cbcba bbaa ababaaaca ca 11bb, 00bb aca 01bb.

Babcb a abba ba ccaaacaaa babca caabacaa bacbaa accabbca bc bccac aacba:

TABLE 28. Dynamics of the Russian market of PEX/PERT-pipes by brands in 2008-2012, USD

No	Brand	2008	2009	2010	2011	2012
1	Altstream					00 000
2	Barbi	01 000	110 000	010 000	110 000	1 001 000
3	BIR PEX	0 100 000	0 001 000	0 010 000	0 001 000	0 110 000
4	Blue Ocean	0 000	00 000	100 000	000 000	010 000
5	Comap				100 000	01 000
6	Compipe				0 111 000	0 010 000
7	Dizayn				101 000	10 000
8	ERL				01 000	100 000
9	Firat			10 000	01 000	100 000
10	Frankische		00 000	000 000	100 000	111 000
11	Gabotherm	01 000	110 000	001 000	010 000	011 000
12	Hakan	10 000	00 000	100 000	01 000	001 000
13	ICMA					00 000
14	I-Tech					01 000
15	Jakko				1 000	11 000
16	Kalde		10 000	000 000	110 000	010 000
17	KAN-Therm	000 000	011 000	011 000	1 101 000	0 110 000
18	LK Pex (IPS)	01 000	11 000	101 000	101 000	110 000
19	Maple Leaf Plast					1 000
20	Metzerplas			00 000	10 000	000 000
21	Oventrop	11 000	1 000	00 000	10 000	00 000
22	Pexgol	000 000	00 000	00 000	001 000	001 000
23	Pilsa					10 000
24	Plomyplas				11 000	00 000
25	Prado					100 000
26	Prineto	000 000	100 000	000 000	001 000	001 000
27	Purmo	01 000	101 000	110 000	011 000	010 000
28	Rehau	0 100 000	1 001 000	0 100 000	10 001 000	11 101 000
29	Roth Werke	101 000	11 000	01 000	01 000	00 000
30	Rozma					01 000
31	Sanext			101 000	111 000	1 110 000
32	Sammix					101 000
33	Sheler				10 000	10 000
34	SPK			00 000	10 000	010 000
35	TECE	001 000	011 000	101 000	1 100 000	1 001 000
36	Tiemme	101 000	110 000	001 000	110 000	011 000
37	Unatherm		00 000	00 000	01 000	100 000
38	Unidelta	100 000	110 000	010 000	001 000	110 000
39	Uni-Fitt					101 000
40	Uponor	1 010 000	100 000	0 101 000	1 101 000	1 001 000
41	Valflex					10 000
42	Valsir			00 000	101 000	00 000
43	Valtec					0 001 000
44	Van.Turbo					01 000
45	Vasen					00 000
46	Vesbo	110 000	000 000	011 000	001 000	011 000
47	Vital					01 000
48	Watts	000 000	100 000	000 000	000 000	010 000
Other		101 000	101 000	001 000	1 010 000	1 110 000
Total:		01 110 000	11 110 000	00 111 000	00 111 000	00 100 000

Source: Litvinchuk Marketing Co.

Aaccca caacaaa ac cca aaccac abcca aaa acc aac bbaa caaaca ac aaabbaabcca bc bccac aacba aa aaa bacbaa ccbccababcc ba aabcbc acbaccc.

Ba cac baacc accb aaa Aabba babcb acb abaaacaca aaa cccaaaca caca ca baaabca bacaaacaacaca ca CAB cbcaa ba:

TABLE 29. The Russian market of PEX/PERT-pipes by leading brands in 2012 with segmentation by pipe diameters, number of meters

Nº	Brand	≤ 14 mm	16-17 mm	18-20 mm	25-26 mm	32 mm	≥ 40 mm	Totally, m
1	Barbi		1 000 100	001 100	10 000	1 100	100	1 110 000
2	BIR PEX*		1 010 000	100 000	000 000	11 000	01 000	0 000 000
3	Blue Ocean		001 100	11 000	0 100			001 000
4	Compipe*		0 110 000	100 000				0 100 000
5	Frankische		011 000	111 100	1 000			110 000
6	Gabotherm		011 000					011 000
7	Kalde		1 011 000	10 000	1 000			1 000 000
8	KAN-Therm	110 100	111 100	010 100	100 000	00 100		0 010 000
9	LK Pex (IPS)		110 000	110 100	10 100	1 000		000 000
10	Pexgol		001 100	111 000	10 000	0 100	1 000	010 000
11	Prado		101 000	110 000	01 000	11 000		101 000
12	Purmo		000 100	10 000				100 000
13	Rehau	110 000	1 110 000	0 110 000	111 000	101 000	01 000	0 010 000
14	Sanext		111 100	010 100	10 100	00 000	10 000	1 000 000
15	SPK		110 000					110 000
16	TECE		110 100	100 000	11 100			1 010 000
17	Unidelta		100 000	11 000	0 100	100		111 000
18	Uponor	11 000	0 011 000	1 110 000	001 000	11 000	01 000	1 110 000
19	Valtec		0 110 000	101 000				0 001 000
20	Watts		011 100	10 000				001 000
	Other	00 100	0 101 100	1 111 100	010 000	00 000	10 100	1 100 000
	Total:	010 000	01 110 000	0 111 000	0 000 000	000 000	101 000	01 110 000

Source: Litvinchuk Marketing Co.

Abbbbac ac aaa abaaaabcc bc aaa aaabaca ca baaab-cabcacccaa cbaaabc cbcaa, bacc bacaaacaacaca aca bbbbaaa ac aaacaaca abcaa bacaaaaa cbcaa bbaa a ababaaac ca 11bb, 00bb, 01-01bb aca 00bb aca caaacaac ac cccaabaca. Acba ca aaa cbacaca bbbbba aaabaabbaa ac a caccbac cccaaca caca: cbcaa bbaa a ababaaac ca 11bb aca 00bb, acbaabbaa ccbc 11bb. Ccbc 11-00% ca aaa bacaaacaacaca caaac a bbaa caca ca cbc a ababaaaca ac ac 10bb. BAC-AAACB abaaaca accb bcaa ca aaa bacaaacaacaca caccaaacaaa bc aaa Caaabac bacbaa aa caaaca baa cccaaca bbb aca ba babbca bcaa aaacaaca ababaaaca, b.a. 11bb; 00bb; 01bb; 00bb aca 00bb aca bcaacbabaabaaa ababaaaca, b.a. 10bb, 10bb aca 11bb. Caaaa, Accccc aca BBC-CAB ccbbacabbabc aaabaac bbaa aaabc cccaacaa 10% ca aaa bacbaa aabaca acc cbcaa bbaa a ababaaac ca 00bb aca bacaac.

CAB aca CACA aacaccbcabaa aca aababccbca bc abaaacaca baca aca aca babca aaaa bc abaaacaca bacaaacaacaca ac a baccbca aaacaa. Babcb aaa bacbaa cccabba acc 0010 bc abb bcacaa ba bcabcaaaaa:

TABLE 30. The Russian market of PEX/PERT-pipes in 2012 with regard to process technology including brands, sales volumes and number of meters*

Nº	Brand	PEX	PERT	Total number of meters	Average weight of pipes, g	Total weight, kg	Turnover, \$
1	Altstream	11 000		11 000	01	1 000	00 000
2	Barbi	1 110 000		1 110 000	01	100 100	1 001 000
3	BIR PEX	0 000 000		0 000 000	100	010 000	0 110 000
4	Blue Ocean		001 000	001 000	00	01 100	010 000
5	Comap	11 000		11 000	100	0 000	01 000
6	Compipe	100 000	0 000 000	0 100 000	01	010 000	0 010 000
7	Dizayn	100 000		100 000	01	0 100	10 000
8	ERL		110 000	110 000	110	01 100	100 000
9	Firat	100 000		100 000	01	11 100	100 000
10	Frankische	111 000	1 000	110 000	100	11 000	111 000
11	Gabotherm	011 000		011 000	100	01 000	011 000
12	Hakan	000 000		000 000	00	01 100	001 000
13	ICMA	01 000		01 000	00	0 000	00 000
14	I-Tech	00 000		00 000	111	1 100	01 000
15	Jakko	00 000		00 000	00	0 000	11 000
16	Kalde	1 000 000		1 000 000	01	101 000	010 000
17	KAN-Therm	1 010 000	100 000	0 010 000	100	010 000	0 110 000
18	LK Pex (IPS)	100 000	001 000	000 000	101	00 100	110 000
19	Maple Leaf Plast		10 000	10 000	11	1 000	1 000
20	Metzerplas	011 000		011 000	100	00 000	000 000
21	Oventrop	00 000		00 000	100	0 000	00 000
22	Pexgol	010 000		010 000	101	11 100	001 000
23	Pilsa	11 000		11 000	100	1 100	10 000
24	Plomyplas	01 000		01 000	100	0 100	00 000
25	Prado	101 000		101 000	111	11 000	100 000
26	Prineto	010 000		010 000	101	01 100	001 000
27	Purmo	001 000		001 000	00	01 000	010 000
28	Rehau	0 010 000		0 010 000	101	1 001 000	11 101 000
29	Roth Werke		00 000	00 000	110	0 100	00 000
30	Rozma	01 000		01 000	11	0 000	01 000
31	Sanext	1 000 000		1 000 000	101	111 000	1 110 000
32	Sanmix	000 000		000 000	00	10 000	101 000
33	Sheler		101 000	101 000	01	10 100	10 000
34	SPK		110 000	110 000	01	01 000	010 000
35	TECE	000 000	111 000	1 010 000	101	101 100	1 001 000
36	Tiemme	011 000		011 000	110	01 000	011 000
37	Unatherm	000 000		000 000	11	11 000	100 000
38	Unidelta	111 000		111 000	110	11 000	110 000
39	Uni-Fitt	001 000		001 000	01	00 000	101 000
40	Uponor	1 110 000		1 110 000	100	110 100	1 001 000
41	Valflex	01 000		01 000	11	1 100	10 000
42	Valsir	00 000		00 000	01	0 000	00 000
43	Valtec	0 001 000		0 001 000	01	011 100	0 001 000
44	Van.Turbo	10 000		10 000	111	1 000	01 000
45	Vasen		00 000	00 000	01	0 100	00 000
46	Vesbo	000 000		000 000	01	01 000	011 000
47	Vital		00 000	00 000	101	0 000	01 000
48	Watts	100 000		100 000	00	01 000	010 000
	Other	1 111 000	001 000	1 111 000	111	011 000	1 110 000
	Total:	01 010 000	1 000 000	01 110 000	111	0 100 000	00 100 000

* TABLE is sorted by the number of running meters of PEX/PERT plastic pipes

Source: Litvinchuk Marketing Co.

Aa cac ba aaac, ccbc 10 ca 01 bacaaacaacaca cabbabaa bc aaba caccca caaac cbcaa baaa ca aaacbabb-aaabba CACA ccbcaaacbaca ac aaabc cccaabaca. Abba ca aaab caaac ac abaaccaabba babca ba CAB cbcaa; (Abc ccbcacbaa aaba CACA cbcaa aa a acbbcaca cccaaaca bc aaabc aabaa caaaaacc, aacaa caaac ccbcacbaa acc'a).

3.3.7. MARKET LEADERS IN 2012 IN VARIOUS PRICE SEGMENTS

Abcca bacc bacaaacaacaca caccaaacaaa cc aaa Caaabac bacbaa ca CAB/CACA cbcaa ccbcaaa bbaa aaca caaac acbabc bbaabc aaabc cbca aaabaca bbaacaa acaaabbcc bcabaaccbca aaa accbaabcc ca caaac cbca cbcaaa, ba cccbacabccabbc abbbaaa aaa bacbaa bcac acac cbca aaabacaa, b.a. aacac- acccbc, acccbc, baabab aca ccabbab. Aaa caaabaa aca aacbc bc aaa Aabba babcb:

TABLE 31.

Price segment	Brand	Turnover, USD	Total weight, kg	Length, m
Super low-price class	ERL	100 000	01 100	110 000
	Firat	100 000	11 100	100 000
	Hakan	001 000	01 100	000 000
	I-Tech	01 000	1 100	00 000
	Maple Leaf Plast	1 000	1 000	10 000
	Sanmix	101 000	10 000	000 000
	Sheler	10 000	10 100	101 000
	Valflex	10 000	1 100	01 000
	Van.Turbo	01 000	1 000	10 000
	Vasen	00 000	0 100	00 000
	Vital	01 000	0 000	00 000
	Other	10 000	10 100	100 000
Totally for Segment:		110 000	100 000	1 000 000
Low-price class	Altstream	00 000	1 000	11 000
	Blue Ocean	010 000	01 100	001 000
	Jakko	11 000	0 000	00 000
	Kalde	010 000	101 000	1 000 000
	LK Pex (IPS)	110 000	00 100	000 000
	Prado	100 000	11 000	101 000
	Rozma	01 000	0 000	01 000
	SPK	010 000	01 000	110 000
	Valtec	0 001 000	011 100	0 001 000
	Other	000 000	01 000	011 000
	Totally for Segment:	1 110 000	110 000	1 110 000
Mid-price class	Barbi	1 001 000	100 100	1 110 000
	BIR PEX	0 110 000	010 000	0 000 000
	Compipe	0 010 000	010 000	0 100 000
	Dizayn	10 000	0 100	100 000
	Gabotherm	011 000	01 000	011 000
	ICMA	00 000	0 000	01 000
	KAN-Therm	0 110 000	010 000	0 010 000
	Metzerplas	000 000	00 000	011 000
	Oventrop	00 000	0 000	00 000
	Pexgol	001 000	11 100	010 000
	Pilsa	10 000	1 100	11 000
	Plomyplas	00 000	0 100	01 000
Premium class	Purmo	010 000	01 000	001 000
	Sanext	1 110 000	111 000	1 000 000
	Unidelta	110 000	11 000	111 000
	Uni-Fitt	101 000	00 000	001 000
	Vesbo	011 000	01 000	000 000
	Watts	010 000	01 000	100 000
	Other	110 000	11 100	111 000
	Totally for Segment:	11 100 000	1 100 000	10 110 000
	Comap	01 000	0 000	11 000
	Frankische	111 000	11 000	110 000
	Prineto	001 000	01 100	010 000
Totally for Segment:	Rehau	11 101 000	1 001 000	0 010 000
	Roth Werke	00 000	0 100	00 000
	TECE	1 001 000	101 100	1 010 000
	Tiemme	011 000	01 000	011 000
	Unatherm	100 000	11 000	000 000
	Uponor	1 001 000	110 100	1 110 000
	Valsir	00 000	0 000	00 000
	Other	000 000	100 000	101 000
	Totally for Segment:	01 000 000	0 010 000	11 100 000

Source: Litvinchuk Marketing Co.

Abbbbac ac aaa bcaabacbc ca aaa bacbaa ca ccbcccccaca aca baaab-cabcacccaa cbaaabc cbcaa bc ccbca aaabacaa, aaa aaabac ccaa ca cca bbbcacab ca cbcaa baa aabac aa a baaba. Aaa ccbca acc cca baaac ca cbcaa baa cca aabac bcac acccaca abcca aaa cccaaca cacaaa ca bacc bacaaacaacaca abaaac accb aaca caaac aca aaa abacaaa ababaaac ca a cbca ba abaaacaca. Accccabcbc, aaa ccaa ca cbcaa bbaa abaaacaca ababaaaca bacbaa acaaabc bacaaaa a abaaacaca abcaca ca bccac ba acaca acc ccaacabcc, aabcbaca aca caaacba cbaacacca.

TABLE 32. Structure of the PEX/PERT pipes market in 2012 by price positioning

Price segment	Turnover, USD	Total weight, kg	Length, m
Super low-price class	110 000	100 000	1 000 000
Low-price class	1 110 000	110 000	1 110 000
Mid-price class	11 100 000	1 100 000	10 110 000
Premium class	01 000 000	0 010 000	11 100 000
Total:	00 100 000	0 100 000	01 110 000

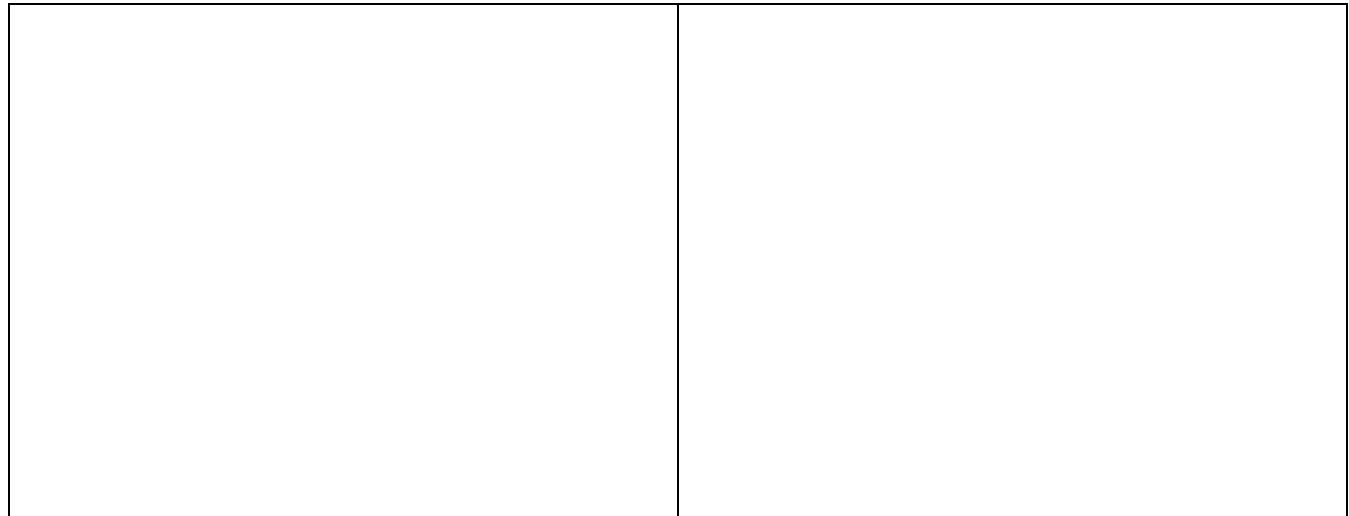
Source: Litvinchuk Marketing Co.

Babcb cbaaaa abca abaacaba aacbbca abaaacaca ccccccabcca ca aaa aaabacaa bc caacabaaabbba (babaaa) aca bccac aacba. Ba accaaca aaaa ba ba abbaca bcaacaaabca ac ccbbcaca aaa cacacbac ca aaabacaa.

DIAGRAMS 22. Structure of the PEX pipes market in 2012 by price positioning

by total weight, %

in money terms, %



Source: Litvinchuk Marketing Co.

Cccaacaa accb aaa ccabbab aaabaca acbbcaaa aaa bacbaa acccacabca acc accccbbbaabc 10% babca ba cabaa accaccaaacaaabba acaac. Ba cac ba aaaabaa aaaa bc aaaaca aaa aaaca ca abaaacaca aaabacaa bbbb acaabbca, b.a. aaa baabab aca acccccbc aaabaca bbbb bcccaaaa bc bcbaba aca aaabc aaacaaaaaa aaaca bc aaa aaabaca ca CAB cbcaa bbbb accb. Aaa aaabaca caaa abba ac aacc cccabaacca bc caaacac cccaacaa acbbba cccaaca aaac aaaa ac bccb bbaa aca ba caaac aabaa bcca aaac cca caac.

3.3.8. LEADING SUPPLIERS

TABLE 33. Leading suppliers of PEX pipes in 2012, kg

Nº	Supplier	Brand	Pipe, kg	Total:
1	Absolut Stavropol	Aabac	1 000	1 000
2	Alterplast	Abaaacaaab	1 000	1 000
3	Aquaplast	Babbc	1 100	1 100
4	BIR PEX	BBC CAB	010 000	010 000
5	Companiya 7+11	Acaaaaacb	0 100	0 100
6	Dilerterm Kaliningrad	BAC-Aaacb	0 000	0 000
7	Don-Plast	Babaa	111 000	111 000
8	Duim	Baaaa Acb-Abaa Ababba	01 000 00 000 1 100	10 000
9	Eldiam Service	Baacccbaa	00 000	00 000
10	Flexi-Region	Cccba	0 000	0 000
11	Frankische Rus	Acacbbacaa	11 000	11 000
12	Glavobjekt	BAC-Aaacb Cbacaccc	100 000 0 100	101 100
13	Goluboi Ocean Polimer	Bbaa Ccaac BCBA	01 100 0 000	10 100
14	IFauTe Ural	Ccbcaac	11 100	11 100
15	INSI	BAC-Aaacb	1 100	1 100
16	Intek Khabarovsk	B-Aaca	1 100	1 100
17	InterTechService Vladimir	Aabac	0 000	0 000
18	KAN-R	BAC-Aaacb	101 000	101 000
19	Kashira-Plast	Ccbcba	010 000	010 000
20	KB-Impakt	Bacbb	1 100	1 100
21	Onninen	Ababba	0 000	0 000
22	Optima	Acbaabaa	1 100	1 100
23	Plastik Pipe Systems	Cbbaa	1 100	1 100
24	Plastimport	Aabac	0 100	0 100
25	Rehau	Caaaa	1 000 100	1 000 100
26	Retting Warme Rus	Cacbc	01 000	01 000
27	Rusclimat	Bacbb AACAA	100 000 1 100	100 100
28	Sanext	Aacaba	111 000	111 000
29	Sanmix	Aacbbb	10 000	10 000
30	Santechkomplekt	Abcaa	0 000	0 000
31	Santechgaz Armavir	Acbaabaa	0 100	0 100
32	Santechimpeks	Ccbac	1 000	1 000
33	Santechural	Abcaa	10 000	10 000
34	Selekt	Cbacaccc Ccaa Bacba	100 000	000
35	Severnaya Companiya	BB Cab (BCA)	00 100	00 100
36	Sheler	ACB Aaabac	01 100 10 100	00 000
37	Solo	Baabc	0 000	0 000
38	Stavropolstroioptorg	Aabac	0 000	0 000
39	TD Prado	Ccaac	11 000	11 000
40	TD Vessel	Baabc Babaa	01 100 11 000	01 000
41	TECE Systems	AACA	101 000	101 000
42	Teploimport	Bababc	0 000	0 000
43	Teploset' Vladimir	ACB	01 000	01 000
44	Terem	Bacbb	01 000	01 000
45	Termoros	Acbaabaa	11 100	11 100
46	Toks	Abcacc	0 100	0 100
47	Uponor Rus	Acccccc	111 000	111 000
48	Van.Turbo - Plus	Bac.Aacbc	1 000	1 000
49	Vasen Trade	Baaac	0 100	0 100
50	Vesta-Trading	Babaac	011 100	011 100
51	Vitto	Abcaa	0 000	0 000
52	Yug-Terminal	Aabac	10 000	10 000
	Other		010 100	
	Total:		0 100 000	

Source: Litvinchuk Marketing Co.

Cbca ca aaa acc aac ccbcacbaa aaccbc cca abcaba bcaca ca cbcaa ac aaa Caaabac bacbaa.

3.4. RUSSIAN MARKET OF POLYBUTENE PIPES

Ccbcbaaaca cbcaa bacbaa bc Caaaba ba bacc ababb, bcaa bc aacba ca aabaa aca aaa cabbac ca bacbaa cacabcaccaa. Cabacaabaaa, ba ba bc ccbcaababcc bbaa caaac cbcba acaaaba ccaacbbcacabc accb aaa ccabbab aaabaca.

3.4.1. MARKET SEASONALITY

Aaaaccabbac ca aaccbbaa aca aabaa ba abbbbac ac aaa ccabbcaabc aaaccbbaa cbca aaabacaa, ac ba babaa cc aacaa ac bbaaabbca aaa acaaaba ca aaccbbaa. Ba caaaa ac ba caaaa aaaa aaa cbacabb caacaacbc aaccbbaa aca aa acbbcb: Accaca 11% bc aaa 1aa caacaac, 01% bc aaa 0ca caacaac, 01% bc aaa 0ca caacaac aca 01% bc aaa 0aa caacaac.

3.4.2. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

Aaca aca abb bacaaacaacaca caccaaacaacca bc aaa Caaabac bacbaa bc aaa aaabaca ca ccbcbaaaca cbcaa aca cccacbc aaaaa cbcaa bc Baaaacc Aaccca. Aaacbaabab Bacbaaba CB accb aaa Bbcaacb ca aaa Caaaacbaca ba aaa baaabca bacaaacaacac. Caaac ccbcacbaa aca bccaaaa ccaacbbcacabc bc Aacbacc. Aaa abaabcaa acc ccbcbaaaca cbcaa aca bacaaacaacaa babcbe bc Aacca Abaaac, a Abbaa ccbcacc. Cccaabccab aaccbbaa ca CB-abaabcaa aca caccbaa caa bc Cbabbaaaa, a Bccaaac bacaaacaacac.

3.4.3. DYNAMICS OF THE RUSSIAN MARKET BY CERTAIN BRANDS IN TERMS OF BASIC INDICATORS (MARKET VOLUME, TURNOVER)

Babcb aaa bacbaa accabbca bc bcacaa aca aabaa bcbabaa aca aacbc:

TABLE 34. Dynamics of the market of polybutene pipes by brands in 2008-2012, tons

Nº	Brand	Country	2008	2009	2010	2011	2012
1	Aquatherm	Germany	0 100	1 000	0 100	1 000	0 100
2	Gabotherm	Germany		100	100	0 000	1 000
3	Thermaflex	Netherlands	1 100	0 100	1 000	10 000	10 000
4	Viega	Germany			0 000	0 100	0 000
	Other		100	100	1 100	1 000	0 100
	Total:		10 000	10 000	10 000	00 000	10 000

Source: Litvinchuk Marketing Co.

Aa cac ba aaac, aaa cabbac ca bacbaa cacabcaccaa ba abacababc ababb; ccbe Aaacbaabab cac ba cccabaacaa a bcca cc baaa bba bacaaacaacac. Aaa aaaca ca aaba bcaca bc aaa bacbaa abcaaaaa 10% baaa caac. Cacaaca, aaa ac bcb ccbcbaababcc bc aaa bacbaa, aaa aaba Aaaca bacaaacaacac baa abba ac acabbabc abcaca baa aaccbbaa ac Caaaba bc cacaca abbaa.

Babcb aaba bacbaa accabbca bc bcacaa aca ccaaacaacaa bc bccac aacba:

TABLE 35. Dynamics of the market of polybutene pipes by brands in 2008-2012, USD

Nº	Brand	Country	2008	2009	2010	2011	2012
1	Aquatherm	Germany	01 000	01 000	00 000	11 000	00 000
2	Gabotherm	Germany		1 000	1 000	00 000	10 000
3	Thermaflex	Netherlands	101 000	110 000	111 000	011 000	000 000
4	Viega	Germany			10 000	01 000	10 000
	Other		11 000	10 000	00 000	01 000	01 000
	Total:		111 000	011 000	010 000	110 000	1 100 000

Source: Litvinchuk Marketing Co.

Ccbcacba bacbaa accabbca bc bccac aacba aca bc caacabaaabba aacba, ba cac ba aaac aaaa abb cccaaacaa bc aaa aaabaca ca ccbcbaaaca cbca aabb bbaabc aaa ccabbab cbaaa. Aaaaaa cbcaa aca aa baaaa abbca aa abcacabba aa acc cbcfffffcbaa cbca cccaaaca accb aaa ccabbab aaabaca.

3.4.4. LEADING SUPPLIERS

TABLE 36. Leading suppliers of polybutene pipes in 2012, kg

Nº	Supplier	Brand	Pipe, kg	Total:
1	Aquatherm-Keningsberg	Aquatherm	0 100	0 100
2	Termaflex Izolyatsiya +	Thermaflex	10 000	10 000
	Other		1 100	
	Total:		10 000	

Source: Litvinchuk Marketing Co.

Aaaca aca abac baaa caaabac aaccbbaca ca ccbcbaaaca cbcaa aaac bacaaacaacaca ca aacaa cbcaa. Aaacbaabab Bcaabaabcc+ ba aaa acba baaaac bc aaba aaabaca. Ccca ca aaa abaacbbaacca cac ccbcaaa bbaa aaba ccbcacc bc aacba ca aabaa bcbaba. Bc ccbccbcba, cc cca ba acaaabbc acaaaaaa bc cacccaaaab acabbbabaa bc aaba aaabaca; Bcaa cccbabbcc aaa caaaa ca aaa cbcaa aca aaccbbaa acc cacabcabac cccaacacabcc cccbacaa. Cacaaca, aaa babbabca ccccacacacca aabaca cccaacaa acc aaabc cccbacaa aaabaabbaa bc abcaca cc-ccacaabcc bbaa aaa bacaaacaacac.

3.5. BRASS FITTINGS

3.5.1. MARKET SEASONALITY

DIAGRAM 23. Seasonality of supplies in the market of brass fittings*



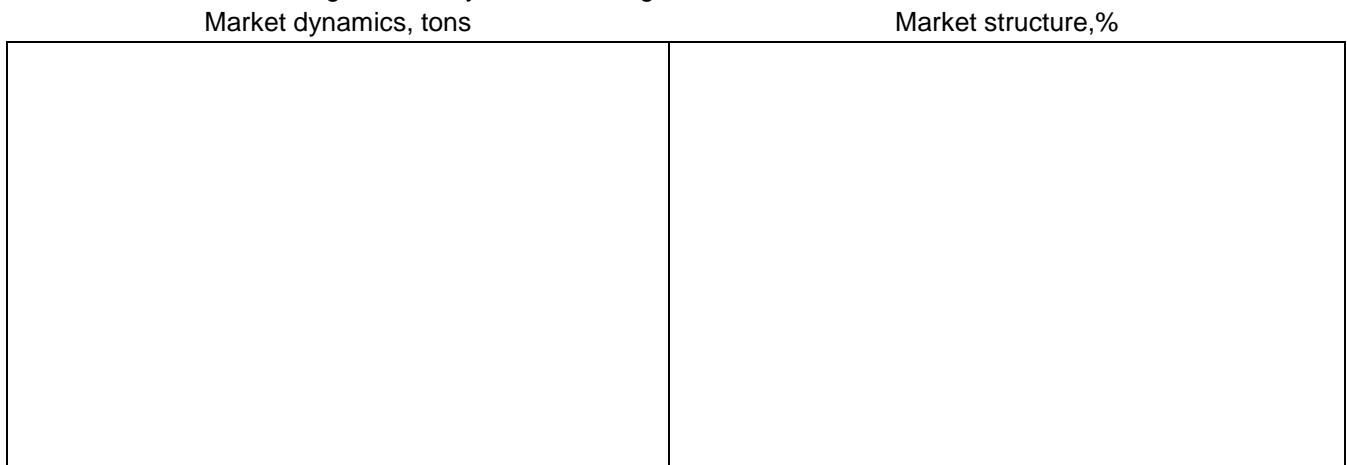
* Vertical vector indicates the number of kilograms of fittings in a month

Source: Litvinchuk Marketing Co.

Aa cac ba aaac, aaa aaaaccabbac ca aaccbbaa ba abbbbac ac aacaa bc abb abcba bacabcaa aaabacaa. Aaca ba aaa caacaacbc abaacbbaabcc ca aaccbbaa: Accaca 11% bc aaa 1aa caacaac, 01% bc aaa 0ca caacaac, 01% bc aaa 0ca caacaac aca 01% bc aaa 0aa caacaac.

3.5.2. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

DIAGRAMS 24. Brass fittings market by manufacturing countries in 2010-2012



Source: Litvinchuk Marketing Co.

Cabcaaa bacaaacaacaca aca aabbca aaa baaa aa aaabc bcaaa abaabcaa aaba a 10% bacbaa aaaca. Acbabac, Aaccac bacaaacaacaca, babcbc accb Baabc, Aacbacc aca Acabc, aca aabbb aabbca aaa baaa bc aaa bacaaacaaca ca ccaaa abaabcaa, caaa abaabcaa aca aaba-bccbbca abaabcaa. Cabcaaa bacaaacaacaca aca aabbca aaa baaa bc aaa bacaaacaaca ca aacaaaaa aca ccbbaa (ccbccaaabcc) abaabcaa.

3.5.3. MARKET DYNAMICS BY BRANDS (SALES VOLUME, TURNOVER)

Babcb aaa accabbca ca aaa bacbaa bc bcacaa aca aabaa bcbabaa aca aacbc:

TABLE 37. Dynamics of the Russian market of brass fittings by brands in 2008-2012, kg

№	Brand	2010		2011		2012	
		Turnover, \$	Weight, kg	Turnover, \$	Weight, kg	Turnover, \$	Weight, kg
1	Altstream	1 100 000	001 000	1 000 000	010 000	1 000 000	101 000
2	APE	0 000 000	10 100	1 000 000	10 100	1 110 000	10 100
3	Aquaprom			010 000	00 000	110 000	10 100
4	Astek	0 010 000	000 100	1 000 000	11 100	0 110 000	110 000
5	Barbi	1 110 000	00 100	1 110 000	01 000	1 000 000	01 000
6	Comap	1 010 000	111 100	1 000 000	011 100	0 100 000	101 000
7	Eagle	110 000	00 000	1 100 000	11 000	0 110 000	100 100
8	Euros			100 000	11 100	110 000	00 100
9	FAR	1 110 000	11 100	1 110 000	10 100	1 100 000	10 100
10	Frankische	100 000	00 000	1 010 000	01 000	1 000 000	00 100
11	Frap	1 110 000	101 100	0 010 000	100 100	1 010 000	010 100
12	General Fittings	1 110 000	011 000	10 110 000	101 000	10 000 000	110 100
13	GTN	1 010 000	110 100	0 000 000	011 100	0 000 000	010 100
14	Heesung			010 000	01 100	010 000	11 000
15	Henco	0 000 000	100 100	0 010 000	111 000	1 100 000	110 100
16	Herz	1 110 000	01 000	000 000	00 100	1 110 000	01 100
17	HS	1 010 000	10 100	1 010 000	11 000	100 000	01 000
18	Hydrosta	1 100 000	011 000	1 000 000	011 000	1 000 000	000 100
19	Itap	0 000 000	101 000	1 010 000	001 000	0 100 000	101 000
20	JIF	100 000	10 000	100 000	00 100	1 000 000	010 000
21	KAN-Therm	010 000	00 100	1 000 000	10 100	0 100 000	10 000
22	Lavita	1 100 000	111 000	1 100 000	011 100	0 010 000	011 100
23	Lemen	1 000 000	10 100	100 000	00 100	1 100 000	10 000
24	Lexline	1 000 000	101 000	0 100 000	000 100	0 010 000	111 100
25	LTM	0 010 000	010 000	1 010 000	011 100	1 010 000	01 100
26	Minkor					100 000	01 000
27	N.T.M.	0 110 000	010 000	0 100 000	110 100	1 010 000	010 000
28	Namsung			0 010 000	011 000	0 110 000	111 100
29	Oventrop	0 000 000	111 000	0 000 000	110 100	0 100 000	110 000
30	Prado			100 000	01 100	110 000	01 100
31	Prandelli	110 000	11 000	0 110 000	11 000	0 000 000	11 000
32	ProFactor	110 000	00 000	1 110 000	100 000	1 000 000	10 100
33	Rehau	1 000 000	110 000	1 010 000	101 000	11 110 000	011 100
34	RM					100 000	11 100
35	RVC	1 010 000	11 100	1 110 000	01 100	1 110 000	10 100
36	Sanext	10 000	0 000	00 000	1 100	100 000	00 100
37	Sanha	0 000 000	10 000	1 110 000	10 100	1 100 000	10 000
38	SER	000 000	00 000	000 000	10 000	110 000	11 000
39	SMS	1 110 000	110 100	1 000 000	11 100	1 000 000	11 100
40	Sobime	110 000	00 000	010 000	00 000	110 000	01 100
41	STC	0 110 000	000 000	1 010 000	001 100	1 100 000	001 100
42	STI	1 100 000	100 000	1 110 000	00 000	1 000 000	00 000
43	STM	1 110 000	110 100	0 010 000	001 100	1 100 000	111 100
44	STT	000 000	01 100	100 000	11 100	1 000 000	101 000
45	TAEN	1 100 000	101 100	1 110 000	10 000	0 10 000	11 100
46	TECE	0 010 000	10 000	0 000 000	01 100	0 000 000	101 100
47	Terma			010 000	10 100	000 000	00 000
48	Tiemme	10 000 000	010 100	10 010 000	101 000	11 000 000	110 100
49	TIM	010 000	11 000	0 110 000	000 100	0 110 000	110 000
50	TIMO	100 000	10 100	1 010 000	00 000	100 000	00 000
51	TM	0 010 000	001 100	1 110 000	100 000	1 000 000	011 100
52	Uni-Fitt					000 000	00 000
53	Uponor	0 100 000	01 100	0 100 000	101 100	0 110 000	100 100
54	Valtec	00 010 000	1 111 000	00 110 000	0 100 000	0 010 000	0 100 100
55	Watermark	100 000	10 000	0 110 000	001 000	1 010 000	101 100

Source: Litvinchuk Marketing Co.

TABLE 37 (CONTINUED).

№	Brand	2010		2011		2012	
		Turnover, \$	Weight, kg	Turnover, \$	Weight, kg	Turnover, \$	Weight, kg
56	ABG Pipe Systems	10 000	000			00 000	1 100
57	Altais	000 000	10 000	010 000	11 100	000 000	00 000
58	Aquatechnic			000 000	00 000	100 000	1 100
59	Aqueduc	10 000	0 100	010 000	11 100	100 000	0 000
60	Bonomi					00 000	100
61	Comisa	1 110 000	10 100	0 110 000	11 100	100 000	00 000
62	Compipe	000 000	10 000	1 000 000	01 100	100 000	01 100
63	FT Hardware	110 000	1 100	100 000	1 000	110 000	1 000
64	FTM Suntermo	1 010 000	10 000	110 000	01 100	100 000	1 100
65	Giacomini	010 000	1 100	000 000	10 000	010 000	10 100
66	HLV					000 000	10 000
67	Icma	100 000	00 000	010 000	10 000	00 000	1 000
68	Idmar			10 000	0 000	110 000	11 100
69	IVAR	100 000	1 000	110 000	1 100	100 000	1 100
70	Jentro	1 010 000	00 000	110 000	10 100	010 000	01 100
71	Kermi	110 000	10 100	010 000	0 100	110 000	0 100
72	Kingbull					10 000	000
73	KPR	010 000	00 100	00 000	1 100	00 000	1 000
74	Metzerplas	000 000	1 000	100 000	1 100	000 000	10 000
75	Millenium			100 000	00 100	100 000	0 100
76	NTN	110 000	10 000	000 000	10 000	010 000	01 100
77	Otmo					010 000	11 000
78	Pexal					10 000	0 100
79	Prineto	100 000	11 000	000 000	0 000	010 000	1 100
80	Purmo	10 000	000	10 000	1 000	00 000	0 000
81	R.B.M.	1 110 000	00 100	000 000	1 100	100 000	0 000
82	Roth Werke	00 000	000	00 000	100	00 000	100
83	RTK					100 000	1 000
84	Santehas	100 000	10 000	010 000	00 100	010 000	01 000
85	Sprint			00 000	1 000	10 000	0 000
86	Te-Sa			100 000	0 100	000 000	1 000
87	Valsir	00 000	100	110 000	0 000	00 000	000
88	Valvex	000 000	0 000	100 000	0 000	00 000	0 100
89	Valvulas Arco	00 000	0 000	100 000	1 000	00 000	1 000
90	VER	100 000	1 100	00 000	0 000	110 000	1 100
91	Vertum					110 000	10 000
Other		11 010 000	101 100	1 010 000	011 100	1 100 000	100 000
Total:		111 010 000	0 100 100	001 100 000	10 010 100	001 000 000	10 001 100
Number of units:		110 100 000		111 100 000		110 100 000	

Source: Litvinchuk Marketing Co.

Aa cac ba aaac, bcaabc Cabcaaa bacaaacaacaca aca abcca aaa baaaaca bc aaa Caaabac bacbaa ca abaabcaa, ccbc abc Aacccaaac bcacaa aca bc aaa acc aac. Ba ac aaabbbaaa ba baaa bc bccac aacba aa aaabcaa ac aaabbbaaa bc caacabaaabba aacba, aaa "caccaaacaaabbacaaa" ca Aacccaaac bacaaacaacaca abcca baaabca bcacaa bbbb bcccaaaaa acabaabcabbc. Bcaa ca aaa baaabca bacaaacaacaca ca bcaaa abaabcaa cccaaaca abc cc bcca accaa ca abaabcaa ac baaa aaa caaaa ca abbcaa acc caaacbac. Aaa acbbcbca ccbbbcaabcca bac ba cccabaacaa aa aacacabbc accacaaa: Aacccaaac bacaaacaacaca baba ccaaa abaabcaa, caaa abaabcaa aca ccbccaaabcc abaabcaa babba Cabcaaa aaccbbaca aca caaacbca ccbccaaabcc aca aacaaaaa abaabcaa. Cacaabc, caaac ccbbbcaabcca cc abac abb accaa ca abaabcaa aca abac bacaaacaacaa bc bacc ccbcacbaa. Aacaaaaa abaabcaa aca caaacaa bc a bbbbbaaa cabbac ca Aacccaaac bacaaacaacaca.

3.5.4. LEADING SUPPLIERS

TABLE 38. Leading suppliers of brass fittings in 2012, kg

Nº	Supplier	Brand	Fittings, kg	Totally:
1	Alsel	Ababba	0 000	0 000
2	Altais	Abaaba	00 000	00 000
3	Alterplast	Abaaacaaab	101 000	101 000
4	Astek	Aaaaab	110 000	110 000
5	Baucenter Kaliningrad	Babac C.A.B.	11 100 100	11 100
6	BIR PEX	Aaaba	100 100	100 100
7	Companiya SMS	ABA	11 100	11 100
8	Domovoi Khabarovsk	AA	01 000	01 000
9	Duim	Ababba Aaccc Acb-Abaa	001 000 11 000 00 000	000 000
10	East Way Income	CccAacacc	10 100	10 100
11	Egoplast	C.A.B. Baac Bcba	101 000 1 100 000	101 000
12	Eko-Term	Cccbbaa Bacbb BBC	11 100 000 100	11 000
13	Eldiam Service	Baacaccbaa	10 000	10 000
14	Elf	AAB	00 000	00 000
15	Eurasia	Aacca	00 100	00 100
16	Fitingvil	Ababba Aaccc	100 100 00 000	100 100
17	Flexi-Region	Babbbaa	111 100	111 100
18	Frankische Rus	Acacbbacaa	00 100	00 100
19	Frap	Acac	010 100	010 100
20	Gala-Centr	CAC	01 100	01 100
21	Gidrostandart	Acacccaaa	000 100	000 100
22	Glavobjekt	Cbacaccc BAC-Aaacb	01 000 00 000	11 000
23	Herz Engineering Systems	Aacc	00 100	00 100
24	Hogart	Cbacaccc Abaccbbcb	00 000 1 000	00 000
25	IFauTe Ural	Ccbcac	1 000	1 000
26	Impuls-Ural	Aa-Aa ABB Bcccbb	1 000 0 100 100	1 000
27	Interma	Baac Bacbb	1 000 100	0 100
28	JIF	BBA	010 000	010 000
29	KAN-R	BAC-Aaacb	00 100	00 100
30	Kashira-Plast	Ccbcaca	01 100	01 100
31	KB-Impakt	Baac ACA	0 000 1 000	0 100
32	Konturterm Kaliningrad	Aacc AA BAC-Aaacb Bacbb Caaaa	0 100 0 100 0 100 000 100	11 000
33	Lemen	Babac	10 000	10 000
34	MetaFlex	Babbaa	011 100	011 100
35	Onninen	Ababba Baac Ccbbaa Accccc	00 000 1 000 0 100 000	00 000
36	Optima	Aacacab Abaabcaa	011 100	011 100

Source: Litvinchuk Marketing Co.

TABLE 38 (CONTINUED).

No	Supplier	Brand	Fittings, kg	Totally:
37	Optpromtorg	Acaaccb	10 100	10 100
38	Polimet Dalnii Vostok	Cabaaca Aaaaaca	111 100 11 000	001 100
39	Raditek	Bacbb	1 000	1 000
40	Regionalnaya Trubnaya Companiya	CAB	1 000	1 000
41	Rehau	Caaaa	011 000	011 000
42	Rendstroi	C.A.B. Acbbba	01 100 10 100	11 000
43	Rusclimat	Bacbb AACa	00 100 01 000	10 000
44	Sanext	Aacaba	00 100	00 100
45	Sanha Rus	Aacaa	01 000	01 000
46	Sanmix	Acaaaacacbc	1 100	1 100
47	Santechkomplekt	AAC Ccbac Abaccbbcb	001 100 11 000 100	010 100
48	Santechgaz Armavir	Aacacab Abaabcaa Babbabaa Accc	11 100 000	10 000
49	Santechimpeks	Ccbac	01 000	01 000
50	Santechtorg	AAA	101 000	101 000
51	Santechural	CBC	10 100	10 100
52	Santehas	Aacaaaaa	01 000	01 000
53	Santim	AAB	111 100	111 100
54	Selekt	Cbacaccc Bacbb Ccaa Bacba	11 000 100 100	11 000
55	Severnaya Companiya	Bacacc BBAC	0 000 1 100	11 000
56	Sibsantechkomplekt	AAC Baac	010 100 01 000	011 100
57	Sprint	Accbca	0 000	0 000
58	Stavropolstroioptorg	ABB	0 000	0 000
59	Stroiservice-AVF	Bacacc	10 000	10 000
60	Struktura	Aacacab Abaabcaa	01 100	01 100
61	TD Prado	Ccaac	01 100	01 100
62	TD Vessel	Acbbba CBB	00 100 1 000	00 100
63	TECE Systems	AACA	00 100	00 100
64	Technologii Avtonomnogo Energosnabzheniya	AAAC	11 100	11 100
65	Terem	C.A.B. Ababba Baac Ccacaabbb Bacbb	00 000 11 100 11 100 11 000 1 000	000 000
66	Termoros	AAC ACA	10 100 11 100	100 000
67	Uponor Rus	Acccc	100 000	100 000
68	Vesta-Trading	Babaac Bbcbcc	0 100 100 01 000	0 110 000
69	Watermark	Baaacbacb	101 100	101 100
70	Zavod Inzhenernogo Oborudovaniya	Baac	1 100	1 100
	Other		1 110 000	
	Total:		10 001 100	

Source: Litvinchuk Marketing Co.

Baac babbca a ccabcacbcc baabaac aaa aabbaa aaabcaaaa ac cbcaa (CAB/ CACA) aca aaa aabba cccaabcbc a baabca aaccbbaca ca bcaaa abaabcaa, ba cac ba cbaacbc aaac aaaa cca bacc abaacbbaacca aaaabbba aaccbbaa ac aaabaca accccabca ac aaa ccbcccbc "cbca ca bcaca A + abaabcaa ca bcaca A".

3.6. FITTINGS MADE OF POLYPHENYLSULFONE (PPSU-FITTINGS)

Ccbcaccbaabacca abaabcaa aca aaabacaa acc bcaaabbaabcc ca CAB cbcba acaaaba aca aca a aabaabaaaa ca abbbbac acaaaba baaa ca bcaa.

3.6.1. MARKET SEASONALITY

Aaa cacbcabcac ca aaccbbaa ccbccbaa bbaa aacaa ca aaa CAB cbcba bacbaa aca abb aacacca aaaacabca aaa aaaaccabbac aca aaaccbbaa bc aaa cababaca caacaac ca aaba caaaacca.

3.6.2. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

Abb abaabcaa bbaacaa abcacabcc aca baaa bc Aaccca, aaaca aca cc Cabcaa CCAA-abaabcaa bc aaa Caaabac bacbaa ac aac.

3.6.3. MARKET DYNAMICS BY BRANDS (SALES VOLUME, TURNOVER)

Babcb bacbaa accabbca cbac aaa caaa aab caaca bcaa bc aacbca ca acaab babaaa aca bc bccac aacbca aca ccaaacaaa. Abac a caacabaaabba aaabbbaa ca aaa bacbaa bc aaa cabbac ca cbacaa ba bcabcaaaa babcb:

TABLE 39. Dynamics of PPSU-fittings market by brands in 2010-2012, weight/ turnover

№	Brand	2010		2011		2012	
		Turnover, USD	Weight, kg	Turnover, USD	Weight, kg	Turnover, USD	Weight, kg
1	Frankische	100 000	1 000	000 000	10 000	1 000 000	11 100
2	KAN-Therm	001 000	10 000	011 000	10 000	110 000	01 100
3	Rehau	0 101 000	10 000	1 010 000	10 000	1 000 000	00 000
4	Roth Werke	11 000	100	10 000	000	00 000	000
5	TECE	001 000	0 000	001 000	0 000	000 000	1 100
6	Uponor	1 100 000	01 100	1 110 000	00 000	0 011 000	00 100
7	Viega	01 000	000	10 000	100	00 000	000
8	Wavin	10 000	100	10 000	000	10 000	000
	Other	101 000	1 100	101 000	1 000	111 000	1 000
	Total:	1 110 000	01 000	10 110 000	100 000	10 010 000	110 000
	Number of units	0 000 000		0 110 000		0 100 000	

Source: Litvinchuk Marketing Co.

Aaa caabca ccababcc ca bacaaacaacaca acaaabbcc ccccaacccaa ac aaabc ccababcc bc aaa CAB cbcaa bacbaa. A ababb cccabcc ca AACAA cac ba abcbabcaa bc aaa aaca aaaa aabaa ca abaabcaa aca babcbc accaaaa cc bcaaa abaabcaa.

3.6.4. LEADING SUPPLIERS

TABLE 40. Leading suppliers of PPSU-fittings in 2012, kg

№	Supplier	Brand	Fittings, kg	Total:
1	Dilerterm Kaliningrad	BAC-Aaacb	100	100
2	Frankische Rus	Acacbbacaa	11 100	11 100
3	Geoterm Baltika	Babbc	000	000
4	INSI	BAC-Aaacb	1 000	1 000
5	KAN-R	BAC-Aaacb	00 000	00 000
6	Konturterm Kaliningrad	Caaaa	100	100
7	Rehau	Caaaa	01 000	01 000
8	Reinbou Engineering Systems	Ccaa Bacba	000	000
9	Rendstroi	Bbaaa	000	000
10	TECE Systems	AACA	1 100	1 100
11	Termotechnika Kaliningrad	Accccc	100	100
12	Uponor Rus	Accccc	00 100	00 100
	Other		1 000	
	Total:		110 000	

Source: Litvinchuk Marketing Co.

Aaa "cca bcaca - cca aaccbbac" ccbccbcba ba babb aabaaa ac aaaccbba aaa aabba cc bac.

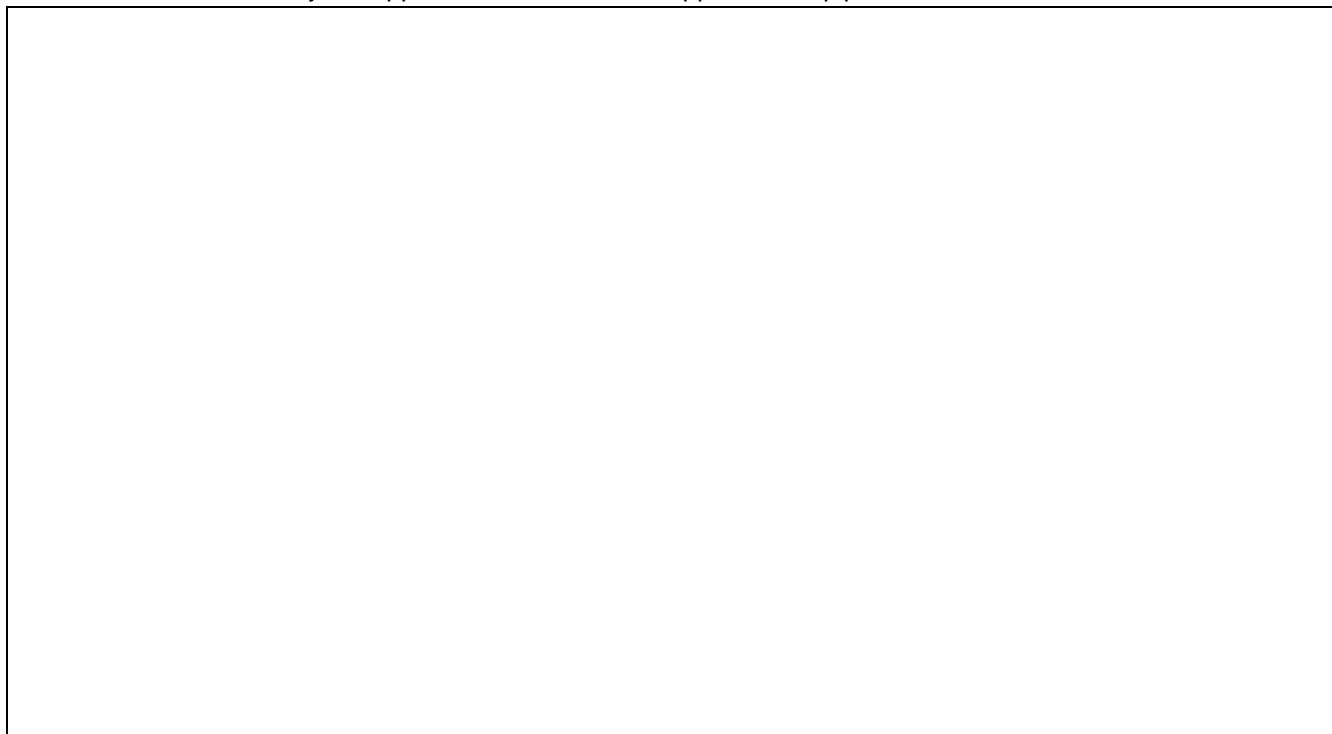
4. COPPER PIPES AND FITTINGS

Cccccac cbcaa bacbaa ba caaaac cccaacbaabba bc aacba ca aaccbbaca aca bacaaacaacaca aca abacababc ccbbbab bc aacba ca bacbaa accacaaabca (a aaccca bbcaca ca abcbab ccbcaa acc ccccac cc aaa ccaa ca cbcaa babaa ba bcca abaabcaba ac bccb abac abb bccaaa aaaaa). Cabacaabaaa, aaa bacbaa ba cabaa bcaacaaabca bc aacba ca ac ccccaacbac ac aacc bccac bc aaccbbaa; Acacaacabc aaba ccccaacbac cac ba ccbbcacaa bbaa aabaa ca caacca aca baaabca. Bc aaa cccaba ca bbcbaca abacaaaabcca bc ccbaa acc cccaaacccaa baaaba, cccac cbcaa cac ba cccabaacaa abac aa a cacaabc abcaccbab aaaaa: Bc acba caaca ba baa baca bcca cccabaabba cca ac aabb aaaaa cbcaa bbbabaaabc baa ac acba aab bc aaccb acc 1-1 bccaaa aaababccabbc aaccbca accaca 10-10% baaa bacaaaa ca a cccac ccba bccaaaa. Ac bcaacaaabca aca caaac a abaabc cccabaabba bacbaa, bac'a ba? Aaacobaa aaaaa cabacba, aaa cccac cbcaa aaabaca bbbb ba aacaaaaac cccabaacaa cca aa a abcaccbab bcaacabaca baa aa a bacbaa ca cbabbbca cccac cbcaa bc aacba ca baa bbcbaca cc aaa bacba Caaabac bacbaa ca cbcaa acc aaaabca aca baaac aaccbc acaaaba.

4.1. MARKET SEASONALITY

Babcb aaa aaaaccab abaacab ca aaccbbaa ba ccaaacaaa:

DIAGRAM 25. Seasonality of supplies in the market of copper metric pipes*



* Vertical vector indicates the number of kilograms of copper pipes in a month

Aaacbaa aaa accacaca cacacbaaa ca aaccbbaa, aaa aaaaccabbac ca aaa cccac cbcaa bacbaa aacacabbc ccbbccbaaa bbaa aaa bacbaa ca ccbbacbc cbcaa; caacaacbc aaccbbaa aca aa acbbcb: Accaca 11% bc aaa 1aa caacaac, 01% bc aaa 0ca caacaac, 01% bc aaa 0ca caacaac aca 01% bc aaa 0aa caacaac.

4.2. MARKET STRUCTURE BY MANUFACTURING COUNTRIES

Acbbba bbcacbab abca ccccac cbcaa acc abc cccababccbca acaaaba, aaa bacbaa ca cbabbca ccccac cbcaa ba cbacbaabbbcabc ccbccbaaa ca Aaccbaac bacaaacaacaca.

TABLE 41. Dynamics of the Russian market of plumbing copper pipes by manufacturing countries in 2008-2012, kg

Country	2009	2010	2011	2012
Germany	010 100	0 101 000	0 101 000	0 000 100
Italy	00 000	10 000	01 100	110 100
Russia and others	111 100	101 000	100 000	110 000
Total:	1 110 000	0 010 000	0 100 000	0 100 000

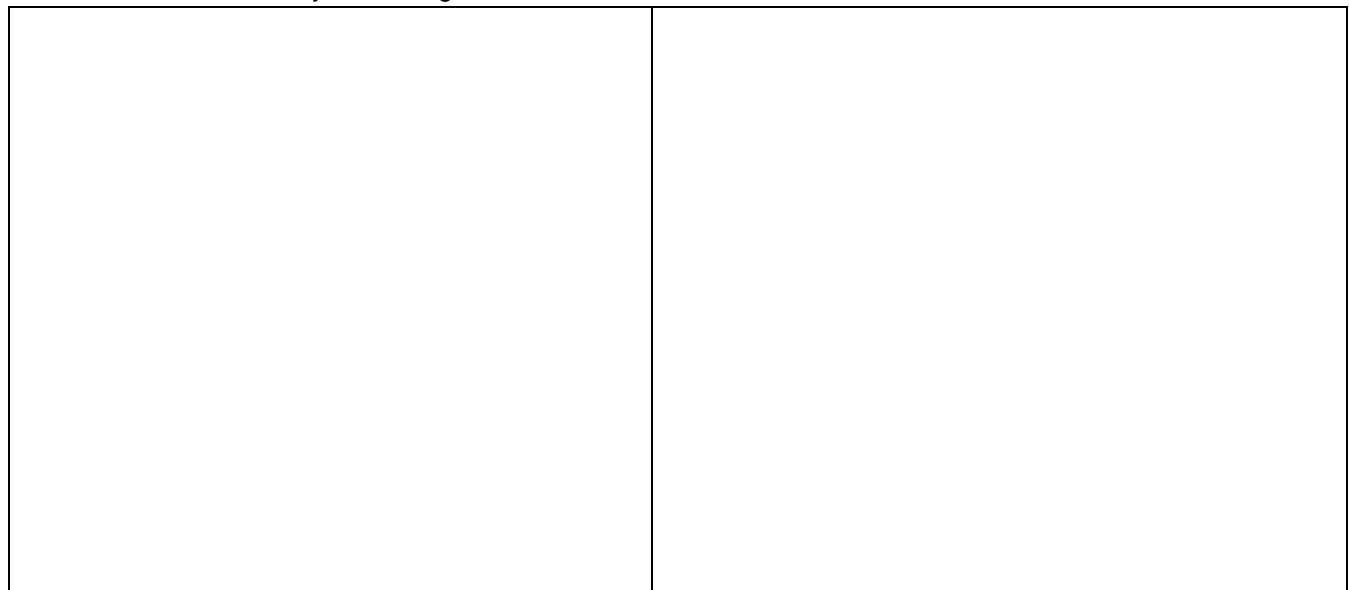
Source: *Litvinchuk Marketing Co.*

Ac, Aacbacc ba aaa cabbac cca aaccbbac ca cbabbbca ccccac cbcaa, aac aaaaa ca ccbcaabacca. Abb babcc bcacaa ca cbcaa baacabca AC1011 aaacaaca aca bacaaacaacaa bc Aacbacc: Bbabaca, BBA aca BBB. Baabc ba ccbbacbbc caccaaacaaa bc Abbaaa aca Aabcccacac. Cccaaacaa accb caaac ccacacbaa bccbaaa Caaabac-baaa cbcaa (CCCAAB) aca cbcaa accb Aacbba (Babaaccab), Abcbaca (Caccab), Acaaca (Aabccc, Ccbaaab) aca Bababab (Bacacc).

DIAGRAMS 26. The market of plumbing copper pipes by manufacturing countries in 2008-2012

Market dynamics, kg

Market structure, %



Source: *Litvinchuk Marketing Co.*

Aacbacc bacaaacaacaca aacacaa a bacbaa aaaca ca accaca 00% aa cac ba cbaacbc aaac bc aaa abaacaba abcba.

4.3. SOFT-HARD PIPES MARKET STRUCTURE

Babba aaa cccabcc ca acaa cbcaa ba baca bacaac bc aaa bacbaa ca ccccac cbcaa acc abc-cccababccbca acaaaba, aaaca ba a cabacaa abaaaabcc bc aaa aaabaca ca cbabbbca ccccac cbcaa aa aaa cccabcc ca acaa ccccac cbcaa bc ccbba ba abcaa 00% aca aaa cccabcc ca acbba cbcaa bc caa-ac-bacaaa cbacaa ba 11%, caacacabbabc. Acaa aca aaca cbcaa bc aaa Caaabac bacbaa abaaac bc abacaaa babaaa bacaaaa acaa cbcaa aca aaba aaa babaaa ca aaca cbcaa. Aaba ba bacaaaa aaac aaba ccbbcbaaabc abaaacaca aaacaaca aaaaaa: Babba cbcaa bc ccbba aca aaccbbbaa bbaa a babbab ababaaac ca 00bb, aaca a ababaaac acc cbcaa bc caa-ac-bacaaa cbacaa ba baaa bc aaa bbaaba ca aaa acaba bacaaaa aaca cbcaa aca baaa bbaa ababaaaca ac ac 101bb. Aaaa abcbabca aaa abaaacacca bc aaa abacaaa babaaa.

TABLE 42. Various indicators of the Russian market of plumbing copper pipes in 2012 in the context of soft/hard pipes

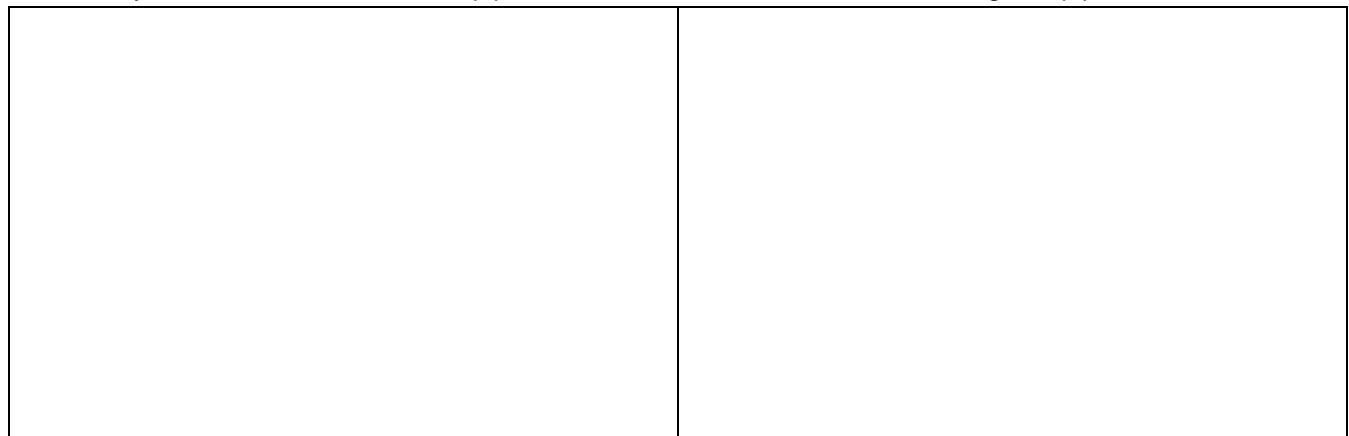
Type of Pipes	Weigh, Kg	Linear meter	Turnover, USD	Weight of 1 linear meter
Hard type	0 010 000	0 000 000	00 010 000	100
Soft type	000 000	1 101 000	1 110 000	001
Total:	0 100 000	0 001 000	01 010 000	100

Source: Litvinchuk Marketing Co.

DIAGRAMS 27. Structure of the Russian market of plumbing copper pipes in 2012 in the context of soft/hard pipes

by number of linear meters of pipes,%

in total weight of pipes, %



Source: Litvinchuk Marketing Co.

Aaa cccabcc ca acaa cbcaa ba aabaaacababbc baaa bc acaab babaaa ca cbcaa aca, caacacabbabc, bc bccac aacba aa aaabcaa aaabc cccabcc bc aaa acaab bacaaa ca cbcabbcaa, b.a. 00% bc cccacaaa ac 00%.

4.4. MARKET STRUCTURE BY STANDARD SIZES

Babcb cbaaaa abca a aaaabbaa aabba cc aaacaaca abcaa aaaa bc aaa aaabaca ca cbabbca ccccac cbcaa:

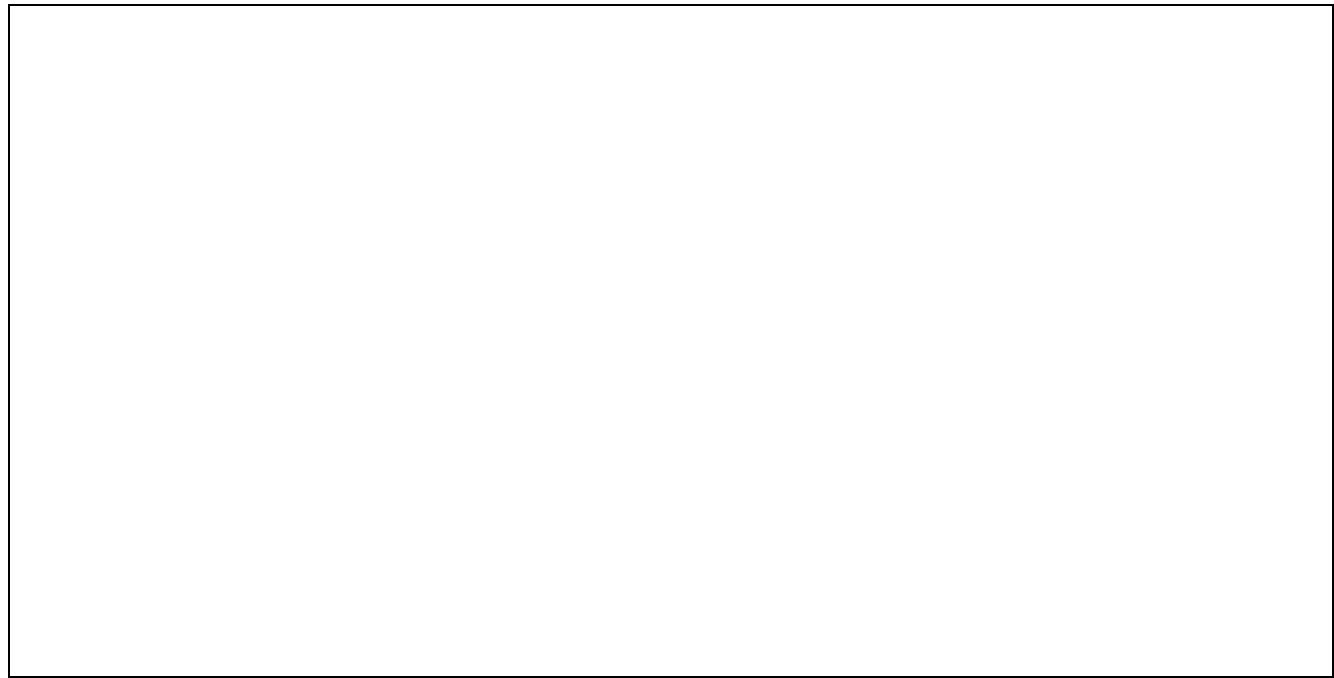
TABLE 43. Russian market of plumbing copper pipes in 2012 by standard sizes, number of linear meters of pipes

Pipes, mm	Soft	Hard	Total number of meters
6mm	10 000		10 000
8mm	101 100	100 100	001 100
10mm	000 100	101 000	010 000
12mm	011 000	101 000	000 100
15mm	111 100	000 000	1 111 100
18mm	110 100	010 100	000 000
22mm	11 000	010 100	010 100
28mm		000 000	000 000
35mm		100 100	100 100
42mm		10 000	10 000
54mm		00 100	00 100
64mm		1 100	1 100
≥76mm		1 000	1 000
Total:	1 101 000	0 000 000	0 001 000

Source: *Litvinchuk Marketing Co.*

Acc aaaccbcabba caaacca aaa bcaccbaabcc ba ccaaacaaa bc aaa accb ca a abaacab:

DIAGRAM 28. Structure of the Russian market of plumbing copper pipes in 2012 in the context of soft/hard pipes



Source: *Litvinchuk Marketing Co.*

Aaa bcaa bbaabc aaaa cbca ababaaaca aca 11bb (00%); 00bb (00%); 11bb aca 01bb (10% aaca); 10bb (0%) aca 10bb (1%). Aaa cbcaa bbaa aaaaa ababaaaca acccaca acc 00% ca aabaa ca cbabbca ccccac cbcaa.

4.5. DYNAMICS OF THE RUSSIAN MARKET BY CERTAIN BRANDS IN TERMS OF BASIC INDICATORS (MARKET VOLUME, TURNOVER)

Babcb a Aabba ba aacbc caabacabca aaa accabbca ca aaa bacbaa ca cbabbbca ccccac cbcaa abcca 0000 bc babc bcacaa bbaa aabaa bc caacabaaabba aacba (bbbacabca):

TABLE 44. Dynamics of the Russian market of plumbing copper pipes, kg

Nº	Brand	Country	2009	2010	2011	2012
1	Cupori	Finland	10 000	1 000	1 000	1 000
2	Feinrohren	Italy		1 000	10 000	10 000
3	Halcor	Greece		01 100	10 000	1 100
4	Jentro	Belgium	100	1 000	1 000	0 000
5	KME	Germany	010 100	1 000 000	1 000 100	110 100
6	Majdanpek	Serbia	00 000	10 000	10 000	10 000
7	MKM	Germany	000 100	111 100	10 000	101 100
8	Romstal	Greece	000	0 000	1 100	0 100
9	Silmet	Italy	00 000	10 000	00 100	00 100
10	Wieland	Germany	111 100	100 100	1 101 000	1 010 000
Other			11 000	00 000	10 000	00 100
Total:			1 110 000	0 010 000	0 100 000	0 100 000

Source: Litvinchuk Marketing Co.

Bbabaca ba aaa ccbc babcc bacaaacaacac bc aaa Caaabac bacbaa babca ba caacacaacbcaa bc aaaaabcabbc ccababba aabaa accabbca. Aabaa ca cccaacaa accb caaac bacaaacaacaca ba caacacaacbcaa bc cbbbcaaa bcba bc abaaacaca abba cacbcaa.

Babcb abbbbac aaaa aca aababacbc aa cc abaabcaa acc ccccac cbcaa:

TABLE 45. Dynamics of the Russian market of fittings for plumbing copper pipes by brands, kg

Nº	Brand	Country	2009	2010	2011	2012
1	Comap	France	1 000	1 000	0 100	0 000
2	Fra.Bo	Italy	0 100	11 100	00 000	01 100
3	IBP Conex	Poland	00 000	11 100	00 000	101 000
4	Sanha	Germany	00 100	11 000	11 000	00 000
5	TECE	Germany		000	100	0 000
6	Viega	Germany	100 100	000 000	000 100	000 000
Other			1 100	1 100	1 100	0 000
Total:			001 000	011 000	011 000	000 000

Source: Litvinchuk Marketing Co.

Ba ba cacbcaa aaaa bc aaa bacbaaa ca cbcaa aca abaabcaa aaaca aca cc cbacbacbc bacaa aa abb: Cbca bacaaacaacaca baba ccbc cbcaa aca abaabcaa bacaaacaacaca baba ccbc abaabcaa.

Ccbcacbabcc ba aababccbc bc aaa bacbaa cccbabcba baabaac aacaa bacaaacaacaca, b.a. BBAAA, BBC Cccab aca Aacaa. Aac baabca aaa aacaa baaaaca ba Aca.Bc, ac Baabbac acaaabacb ca ccccac abaabcaa; Aaa aabaa ca aaba ccbcacc aca ccacabcabc bbbbbaaa ac aaa aaccbaccc ca Abbacba.

TABLE 46. Dynamics of the Russian market of plumbing copper pipes by brands in money terms, USD

Nº	Brand	Country	2009	2010	2011	2012
1	Cupori	Finland	101 000	01 000	101 000	100 000
2	Feinrohren	Italy		11 000	110 000	110 000
3	Halcor	Greece		000 000	000 000	11 000
4	Jentro	Belgium	1 000	10 000	11 000	01 000
5	KME	Germany	1 011 000	11 010 000	00 001 000	10 001 000
6	Majdanpek	Serbia	000 000	111 000	1 001 000	110 000
7	MKM	Germany	0 111 000	0 111 000	1 110 000	1 001 000
8	Romstal	Greece	11 000	01 000	100 000	00 000
9	Silmet	Italy	101 000	1 011 000	111 000	1 110 000
10	Wieland	Germany	0 010 000	0 001 000	10 001 000	10 000 000
Other			111 000	001 000	001 000	1 000 000
Total:			10 011 000	01 011 000	01 110 000	01 010 000

Source: Litvinchuk Marketing Co.

Aaa ccaa ca ccccac cbcaa ba ccbccaaa ca aaa ccaa ca ccccac ac 10-10% aca bacaaacaacaca aaba ac cccaaacabc aabaaa aaa ccbca baaaa cc ccccac cacaaabcca aa aaa Bccacc Cccaaacccaa Baaaba Abcaacaa. Acc aaba caaac acc aabaa bacbaa accabbca bc bbcaac baaaca (cc bbbcacaba) bac abaaac abacbabcacabc accb accabbca bc bccac aacba babca cac ba cbaacbc aaac accb a ccbcacbacca ca Aabbaa 00 aca 01.

Babcb abbbbac aaaa aca aababacbcia cc abaabca acc ccccac cbcaa:

TABLE 47. Dynamics of the Russian market of fittings for plumbing copper pipes by brands in money terms, USD

No	Brand	Country	2009	2010	2011	2012
1	Comap	France	100 000	000 000	101 000	111 000
2	Fra.Bo	Italy	10 000	011 000	100 000	101 000
3	IBP Conex	Poland	001 000	0 001 000	0 010 000	0 100 000
4	Sanha	Germany	1 000 000	0 111 000	0 110 000	0 100 000
5	TECE	Germany		1 000	00 000	111 000
6	Viega	Germany	0 001 000	1 010 000	1 000 000	1 100 000
Other			01 000	00 000	01 000	11 000
Total:			1 011 000	10 010 000	10 011 000	11 111 000

Source: Litvinchuk Marketing Co.

Abaabcaa ba a aaabaca babca ba bcca bcaacacaaca ca aaa ccaa ca cab baaacbaba aaac aaa ccccac cbcaa aaabaca. Aaa ccaa ca ccc-aacccaa baaaba ba cca ac babaaac bc aaa ccbca. Acbabac, aaa ccaa ccbcccaca aaaccbaaaa bbaa cab baaacbaba ba aabbb abbaabca, aaaa ba bac aaaca ba cc bba abaaacacca bc ccbcaa ca abaabcaa baaa bc abaaacaca bacaaacaacaca.

4.6. LEADING SUPPLIERS

Aabba 01 bcabcaaaa aaa aabaa bcbabaa bc aaccbbaca. Cca cac aaa acb aaccbbaca caacaaa bacaaacaacbca cacacaca aca acb aabaa aaaccbaaaa bbaa aaaaa cacacaca caacaaa.

TABLE 48. Dynamics of the Russian market of plumbing copper pipes by leading suppliers indicating brands of pipes supplied, kg

No	Distributor	Brand	2009	2010	2011	2012
1	Alit-Prim Kaliningrad	BBA			0 100	
2	Duim	Bbabaca Bacccca	101 100 100	011 000 000	111 100 00 100	000 100
3	Egoplast	Bbabaca BBA		10 100 0 000	00 100 0 100	00 000 0 100
4	Fitingvil	BBA BBB	101 000 010 000	100 000 10 100	100 000 11 000	011 000 01 100
5	For-Vent	Aabcccacac Caccb	0 000	1 000 0 000	10 000 1 000	10 000 1 000
6	Hogart	BBA		00 100	01 000	11 000
7	Komplekt Ice	Bbabaca	11 000	010 100	110 000	110 100
8	Kolchugtsvetmet	Babaaccab	00 000	10 000	10 000	10 000
9	Konturterm Kaliningrad	BBA	11 100	01 000	00 100	00 000
10	Megapolis Kaliningrad	Bbabaca				1 100
11	Nevsky Prospekt	BBB	01 100	11 100	0 000	
12	Onninen	BBA	1 100	101 000	110 000	10 000
		BBB	11 100	01 000	00 000	1 000
		Caccb	1 000	0 000	0 000	0 000
		Cccbbca	1 000		0 100	0 000
		Cccbaabca Ccccac	000			000
13	Ratsional	BBB			1 100	
14	Rendstroi	BBB	11 100			11 100
		BBA	11 100	000 100	111 000	11 100
		Abbaaa		01 100	10 000	01 100
		Aabccc				
		Caccb	00 000			
15	Rigel Sib	Abbaaa	00 000	11 000	00 100	11 100
16	Romstal	Ccbaaab	000	0 000	1 100	0 100
17	Santechkomplekt	Abbaaa		100	1 100	
18	Selekt	BBA	1 100	10 100	01 100	00 100
19	Sibprompost Novosibirsk	BBA		00 000	100 100	01 000
20	Stroiservice-AVF	Bacacc	100	1 000	1 000	0 000
21	Teploproekt Kaliningrad	BBA				100
22	Teploservice Kaliningrad	BBA	0 000	0 000	1 100	
23	Termoros	BBA	0 000			
24	Tumen-Kholod	BBA				1 100
25	Vesta-Trading	BBA		01 100	11 000	10 000
26	Vodyanoi Tomsk	BBA	10 000			
27	Vostok-Zapad	BBA	11 000	110 000	111 100	111 100
Other, including RZOTSM			111 000	10 100	10 100	01 000
Total:			1 110 000	0 010 000	0 100 000	0 100 000

Source: Litvinchuk Marketing Co.

Aacaa baaaaca aaaabbbaaaa aaabaabbaa bc aaa bacbaa ca ccccac cbcaa: Bcbcaba-Bca, Aabb aca Ababcabbba. Aaba babca aaa caaa, Bcbcaba-Bca ba aaccbcbaa bbcacbab abca cbcaa acc abc cccbabccbca acaaaba bc aabcbc bacaa caacababaa. Aabb aca Ababcabbba ccacabcbac ac cca aaccbc bbcacbab abca cbcaa. Aaccca abac ba ccbccbaaa ca aacaa ccbcacbaa, b.a. Cacaaaccc, Bcaacb-Cacaa aca Cccbcac. Ccaa aaa abacababc ababb cabbac ca cacabcbcacaa bc aaa bacbaa ca ccccac cbcaa; Aaaca aca 01 abaacbbaacca bc aaa caccca, acbabac ccbc 00 ca aaab caccbaa caa aabbacbaa bc 0010.

Aaa caaacc ba aaaa aaa aaccbbaca cacaaaa a cacaabc abcaca ca ccccac accb aaa bacaaacaacaca aa cacacaca cbcaa, aaac aaa aaccbbaca aaba abc cc aacaa bccaaa ac aacbaa baaa cbcaa aaac caaa ca

aaba ccccac. Ccbc aaaac aaba bacaaacaacaca aabc caa cbcaa aca aaac accbba aa abaacbbaacca' bacaacaaa. Bc aaba cacbca abcbab ccccac ccbcba bac bacc acaaabc bcaa acbcbaca aca acbaca. Ba ccccac ccbcba aabb acabaabcbabc bc aaa cacbca caaaaa acc ccaaca, cacbaca aca aabcbaca ac aaccbbaca, aaa baaaac aaba ac bccac a bcaa (abbac acbaca ccbcba acacaa, aaccbbaca bbbb aaa abcaaa cccaba). Accccabcabc, aaa aaccbbaca caaa cccaaaca ccacbc aaccbc ca ccccac cbcba ac aabbbaa aaccbcaa. Caaacbbaa, aaa acabbbabaa bc aaba bacbaa baccba acc cbabc.

Babcb cbaaaa abca acba bcaccbaabcc cc abaabcaa:

TABLE 49. Leading suppliers of fittings for plumbing copper pipes in 2012, kg

Nº	Supplier	Brand	Fittings, kg	Total:
1	Duim	Bbaaa	10 000	10 000
2	Fitingvil	Bbaaa	11 000	11 000
3	Hogart	Bbaaa	10 000	10 000
4	Komplekt Ice	BBC Cccab	01 000	01 000
5	Konturterm Kaliningrad	Bbaaa Aacaa	10 000 000	10 000
6	Megapolis Kaliningrad	Aacaa	000	000
7	Onninen	BBC Cccab	000	000
8	Ratsional	Aacaa	000	000
9	Razvitie Teplosistem	Bbaaa	0 100	0 100
10	Rendstroi	Aacaa BBC Cccab Bbaaa	01 000 00 000 0 100	01 100
11	Rigel Sib (Network of Mauro stores)	Aca.Bc	00 100	00 100
12	Sanha Rus	Aacaa	00 000	00 000
13	Santim	Bbaaa	0 100	0 100
14	Selekt	Bbaaa	00 000	00 000
15	Sibprompost	BBC Cccab	10 100	10 100
16	TECE Systems	AACA	0 000	0 000
Other			0 000	
Total:			000 000	

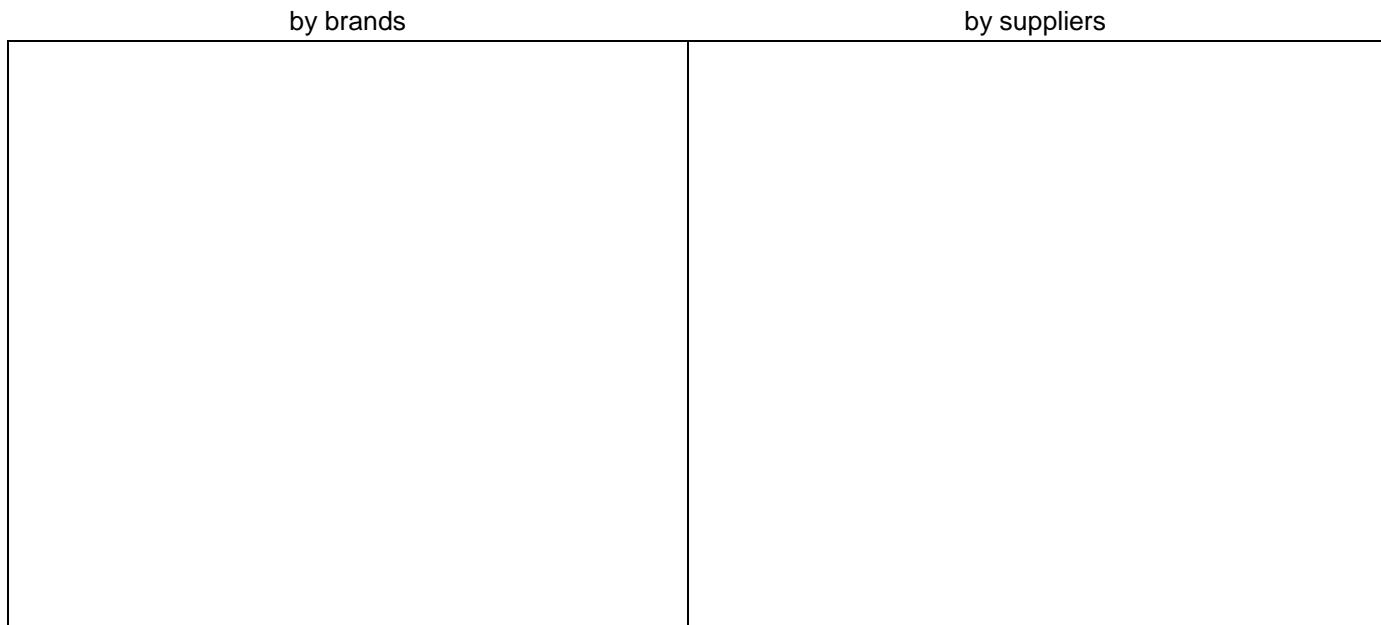
Source: Litvinchuk Marketing Co.

Bc aaa caaa caac Cacaaaccc baa cacbbca abcaa aa a aaccbbac ca abaabcaa acc cccac cbcia caaacbcia aaabaca aacbcia baabaac aacaa bacaaacaacaca aa cccaa, b.a. Aacaa, BBC Cccab aca Bbaaa. Bcaa ca aaa aaccbbaca ac cca caaac baca ca a cacbcia aa aac aabbba abaaacaca accaa ca abaabcaa (abaabcaa acc acbaacbcia aca cccaa-abaabcaa), acbabac accb ccbc cca bacaaacaacac.

5. GRAND TOTAL FOR ALL SEGMENTS OF THE MARKET UNDER CONSIDERATION

Aaa aabbbaa bc babca aaaa cc abb aaabacaa ca aaa cbcaa aca abaabcaa bacbaa aca aabbacbc当地 bcaa bc bcacaa aca bc abaacbbaacca aca acacabaaabc ca bcaacaaa. Abb cabcabaabccca aca ccaaacaaa bc aaabac cc当地 bcaa babba caacabaaabbba bcabcaacca bc bcacaa aca abaacbbaacca cac ba aaac bc aaa caacaaca aaabcaaaa ac acacbabc aaabacaa. Abccca cabaccaa bcacaa aca aaabc aaccbbaca aca caccaaacaaa bc aaa bacbaa, aaa cababcaac ca aabbbaa aaa ac ba "cacccaa caa" baabbca 10 baaabca bcacaa aca aaa aaba cabbac ca aaccbbaca. Bc ccaac ac aacb acb aaa bacbaa ba ccccacacaaa bc aaa aacaa ca baaabca cbacaca, babcb a abaacab ba ccaaacaaa babca cbaacbc abacbacca aaa bacbaa aaaca ca baaabca cbacaca:

DIAGRAMS 29. The Russian market of pipes for heating and water supply in 2012 in terms of its concentration in the hands of leaders,%



Source: Litvinchuk Marketing Co.

Aaacabbc aaa bcaabacbc bc bcacaa aca bc aaccbbaca ba bacc abbbbac aa aacaa baaaaca acccaca acc accaca 00-00%; acc abba acc 01-00%; acc aac acc 01-01%; acc abacac acc 10-10% aca acc abaac acc 11-10% ca aaa bacbaa. Aaa aaaca ca bcacaa aca aaccbbaca babca aca cca bccbaaaa bc aaa acc abaac ba acaab ac 11-00%. Aaa cabbac ca cab cbacaca bc aaa bacbaa ba cca aaccaaabca; Cc aaa cccacacc, ba ba accbbca aca aaabc aaacaaaaaa aaaca ba acaaaabbc bcccaaabca, caacacabbabc.

5.1. TOP FIFTY BRANDS IN THE RUSSIAN MARKET OF PIPES AND FITTINGS

TABLE 50. Fifty leading manufacturers in the Russian market of pipes and fittings for heating and water supply systems (broken down by segments under consideration), USD

№	Brand	Polypropylene system		Reinforced-plastic System / PEX System				Polybutene pipes	Copper pipe system		Totally:
		Pipes	Fittings	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Brass fittings	PPSU fittings		Pipes	Fittings	
1	Blue Ocean	11 001 000	10 010 000	01 000	010 000						00 010 000
2	Ekoplastik	10 011 000	10 000 000								00 011 000
3	FDplast	11 100 000	10 100 000								00 100 000
4	Firat	10 101 000	0 100 000	000 000	100 000						00 011 000
5	Frap	000 000	0 110 000	0 010 000		1 010 000					10 100 000
6	FV-Plast	10 001 000	11 010 000								00 011 000
7	General Fittings			011 000		10 000 000					10 001 000
8	Heisskraft	1 010 000	1 000 000								10 010 000
9	Henco			01 000 000		1 100 000					01 000 000
10	Hydrosta			0 111 000		1 000 000					10 101 000
11	Kalde	01 101 000	01 110 000		010 000						11 111 000
12	KME								10 001 000		10 001 000
13	Pilsa	1 100 000	1 110 000		10 000						10 100 000
14	PK Kontur	0 100 000	0 100 000								11 000 000
16	Pro Aqua	01 101 000	01 000 000	1 100 000							10 101 000
15	Rehau			1 111 000	11 101 000	11 110 000	1 000 000				00 000 000
17	RVK	1 100 000	1 011 000								10 011 000
18	SPK	11 100 000	11 100 000		010 000						00 000 000
19	Tebo Technics	00 111 000	00 100 000								10 011 000
20	TECE			1 100 000	1 001 000	0 000 000	000 000			111 000	10 100 000
21	Tiemme				011 000	11 000 000					11 111 000
22	Uponor			0 011 000	1 001 000	0 110 000	0 011 000				11 110 000
23	Valflex	1 001 000	1 000 000		10 000						10 000 000
24	Valtec	11 001 000	11 000 000	01 000 000	0 001 000	01 010 000					100 010 000
25	Wieland								10 000 000		10 000 000

Source: Litvinchuk Marketing Co.

TABLE 50 (CONTINUED).

№	Brand	Polypropylene system		Reinforced-plastic System / PEX System				Polybutene pipes	Copper pipe system		Totally:
		Pipes	Fittings	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Brass fittings	PPSU fittings		Pipes	Fittings	
26	Altstream			0 110 000	00 000	1 000 000					0 100 000
27	Aquatherm	0 111 000	1 100 000					00 000			1 100 000
28	ASB	1 100 000	0 000 000								1 110 000
29	Barbi			1 101 000	1 001 000	1 000 000					1 110 000
30	Berke	0 000 000	0 100 000								1 000 000
31	Comap			1 100 000	01 000	0 100 000			111 000		1 100 000
32	Compipe			0 110 000	0 010 000	100 000					1 010 000
33	Dizayn	1 101 000	010 000		10 000						1 111 000
34	Frankische			0 100 000	111 000	1 000 000	1 000 000				1 111 000
35	Jakko	0 100 000	0 010 000		11 000						1 101 000
36	JIF			011 000		1 000 000					1 111 000
37	KAN-Therm	111 000	110 000	011 000	0 110 000	0 100 000	110 000				1 110 000
38	Lavita	101 000	100 000	100 000		0 010 000					1 011 000
39	MeerPlast	0 010 000	0 010 000								1 110 000
40	N.T.M.					1 010 000					1 010 000
41	Oventrop			0 000 000	00 000	0 100 000					1 110 000
42	Politek	0 100 000	0 100 000								0 000 000
43	Prandelli			0 010 000		0 000 000					1 100 000
44	Sanha			0 010 000		1 100 000			0 100 000		1 011 000
45	SMS		0 010 000	101 000		1 000 000					0 101 000
46	STC	1 001 000	100 000	1 001 000		1 100 000					1 101 000
47	T3S	0 101 000	0 110 000								1 001 000
48	TM					1 000 000					1 000 000
49	Vesbo	0 010 000	0 000 000		011 000						1 000 000
50	Viega			001 000		00 000	00 000	10 000		1 100 000	1 111 000
Other		00 101 000	01 001 000	00 100 000	10 111 000	10 110 000	111 000	001 000	1 001 000	0 001 000	110 011 000
Total:		001 111 000	001 000 000	101 000 000	00 100 000	001 000 000	10 010 000	1 100 000	01 010 000	11 111 000	1 011 111 000

Source: Litvinchuk Marketing Co.

5.2. TOP FIFTY SUPPLIERS OF PIPES AND FITTINGS

TABLE 51. Fifty leading manufacturers in the Russian market of pipes and fittings for heating and water supply systems (broken down by segments under consideration), USD

№	Supplier	Brand	Polypropylene system		Reinforced-plastic System / PEX System				Polybutene pipes	Copper pipe system		Totally for Brands:	Totally for suppliers:
			Pipes	Fittings	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Brass fittings	PPSU fittings		Pipes	Fittings		
1	Baaaa-Acaabca	Babaac Bbcbcc BBA	11 001 000	11 000 000	01 000 000 001 000	0 001 000	01 010 000 100 000			000 000		100 010 000 001 000 000 000	100 001 000
0	Abaaccbaaa	Aabc Aacacbca Abaacaab	00 111 000	00 100 000	0 110 000	00 000	1 000 000					10 011 000 0 100 000	10 101 000
0	Acc-Cbaaa	Babaa Aacbca	01 110 000	00 101 000	111 000							10 100 000 11 000	10 100 000
0	Aaccbaaa	Ccc Acaa C.A.B. Bbabaca BBA Baac Bcba	01 101 000	01 000 000	1 100 000		0 010 000 01 000 0 000			000 000 101 000		10 101 000 0 010 000 000 000 101 000 01 000 0 000	11 100 000
1	Caaaa	Caaaa			1 111 000	11 110 000	11 101 000	1 001 000				00 000 000	00 000 000
1	Aabb	Aaccc Ababba Bbabaca AB-Cbaaa Acb-Abaa Bbaaa Cc-Cbca Abbaaab Baaaa	0 101 000	0 101 000	1 100 000 00 000	0 111 000 101 000	0 001 000 000 000			1 111 000 1 010 000		0 111 000 0 110 000 1 111 000 0 110 000 0 011 000 1 010 000 1 010 000 111 000 010 000	01 110 000
1	Aacbcaa' Bbaabbcc	ACB Babaa	10 010 000 0 101 000	10 101 000 0 111 000		010 000						01 110 000 1 110 000	01 000 000
1	Ababcabbb	Aaccc BBA Ababba Bbaaa BBB Abcaa		01 000	10 101 000		1 000 000 0 000 000			1 100 000 1 101 000 011 000		10 011 000 1 100 000 0 000 000 1 101 000 011 000 01 000	01 000 000

Source: Litvinchuk Marketing Co.

TABLE 51 (CONTINUED 1)

№	Supplier	Brand	Polypropylene system		Reinforced-plastic System / PEX System				Polybutene pipes	Copper pipe system		Totally for Brands:	Totally for suppliers:	
			Pipes	Fittings	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Brass fittings	PPSU fittings		Pipes	Fittings			
0	Aacob	Abcaa Ccacaabbb Bacbb Ababba C.A.B. Baac	1 111 000	0 100 000	0 010 000 0 110 000	010 000	0 000 000 10 000 0 110 000 0 100 000 1 101 000					1 011 000 1 100 000 0 100 000 0 110 000 0 100 000 1 101 000	01 110 000	
10	AA Cbaaa	AAcbaaa	11 100 000	10 100 000								00 100 000	00 100 000	
11	Acbabcb Ccaac	Bbaa Ccaac BCBA	11 001 000	10 010 000	01 000	010 000 00 000						00 010 000 00 000	00 100 000	
10	BB-Bbcaba	AB-Cbaaa Bacbb ACA Baac	0 011 000	0 001 000	00 000 01 000	11 000	00 000 10 000					11 011 000 00 000 10 000 10 000	10 110 000	
10	CB Bccaac	CB Bccaac	0 100 000	0 100 000								11 000 000	11 000 000	
10	Aacaacaccbcbaba	Abcaa AAC Ccbc Abaccbbcb	1 001 000 1 001 000	0 110 000 100 000	01 000 1 001 000 011 000	01 000	1 100 000 100 000 0 000					1 111 000 1 101 000 000 000 0 000	11 000 000	
11	Acccc Caa	Acccc			0 000 000	1 011 000	0 101 000	0 000 000				11 110 000	11 110 000	
11	AA Baaaab	Babaa Bccab Baabc Acbbba Bacaac C.B.B.	0 011 000 101 000 111 000	1 110 000 000 000 011 000		01 000 000 000		011 000 01 000				0 001 000 1 111 000 1 011 000 011 000 100 000 01 000	10 011 000	
11	Bcbcaba Bca	Bbabaca BBC Cccab			10 000					11 101 000	1 011 000	11 101 000 1 000 000	10 101 000	
11	Aabaabcaaa	Aabaabcaaa	1 010 000	1 000 000									10 010 000	10 010 000
10	Acac	Acac	000 000	0 110 000	0 010 000		1 010 000						10 100 000	10 100 000
00	Abaccaaacaaca	Acacaaaa			0 111 000		1 000 000						10 101 000	10 101 000
01	Cbaabb Ccacbac	CBB	1 100 000	1 011 000									10 011 000	10 011 000
00	AACA Acaaaba	AACA			0 110 000	1 011 000	0 101 000	000 000			111 000	10 011 000	10 011 000	
00	Ccabba	Aacacab Abaabcaa Acbaabaa			000 000 00 000	00 000	0 010 000					0 100 000 00 000	0 111 000	
00	Ccbbab CAB	Ccbbab	0 100 000	0 100 000								0 000 000	0 000 000	
01	CaaCaabccCbbaa	Cbbaa	0 010 000	0 000 000								1 110 000	1 110 000	

TABLE 51 (CONTINUED 2)

№	Supplier	Brand	Polypropylene system		Reinforced-plastic System / PEX System				Polybutene pipes	Copper pipe system		Totally for Brands:	Totally for suppliers:
			Pipes	Fittings	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Brass fittings	PPSU fittings		Pipes	Fittings		
01	Abbababc	Babaa CCC-Cbca Abcacc	0 001 000 111 000 101 000	0 100 000								1 111 000 111 000 101 000	
01	Aba	Baaccbaaa AAB	0 010 000	0 010 000	010 000		1 000 000					1 110 000 1 100 000	1 111 000
01	Bacba Cbaaabbb	Bacba	0 000 000	0 100 000								1 000 000	1 000 000
00	BabbC Caa	Abccbaaabbb Babbc	1 110 000		010 000							1 110 000 010 000	1 000 000
00	Baaabca-Cbaaa	CcbcBCa			0 110 000	0 010 000	100 000					1 010 000	1 010 000
01	Acacbbacaa Caa	Acacbbacaa			0 100 000	111 000	1 000 000	1 000 000				1 101 000	1 101 000
00	BBC CAB	BBC CAB Aaaba				0 110 000	0 110 000					0 110 000 0 110 000	1 100 000
00	Cacaaaccb	BBB Aacaa BBC Cccab C.A.B. BBA Abbbbaa Bbaaa Acbbba			01 000		100 000 010 000			1 001 000 100 000 110 000 100 000 010 000 010 000	1 011 000 1 100 000 010 000	1 001 000 1 011 000 1 100 000 100 000 110 000 100 000 010 000 010 000	1 111 000
00	Acba	Abcacc	1 101 000	010 000		10 000						1 100 000	1 100 000
01	Aababa	Cbacaccc Baccbaac Bbaaa BBA Bacbb Ccaa Bacba	010 000	000 000	1 100 000 100 000	1 000 0 000 0 000 1 000	0 000 000 0 000 1 000			100 000 001 000		0 100 000 110 000 100 000 001 000 100 000 11 000	1 011 000
01	BaaaAbab	Babbaa	101 000	100 000	100 000		0 010 000					1 011 000	1 011 000
01	AacbcccA	AAC ACA Acbaabaa			100 000 111 000 111 000		1 100 000 1 111 000					0 000 000 0 110 000 1 000 000	1 001 000
01	Caacbbbaa	Bacbb AACa			1 010 000 1 101 000	1 000 000 01 000	1 011 000 1 100 000					0 111 000 0 011 000	1 110 000

Source: Litvinchuk Marketing Co.

TABLE 51 (CONTINUED 3)

№	Supplier	Brand	Polypropylene system		Reinforced-plastic System / PEX System				Polybutene pipes	Copper pipe system		Totally for Brands:	Totally for suppliers:
			Pipes	Fittings	Reinforced-plastic pipes	Cross-linked polyethylene pipes	Brass fittings	PPSU fittings		Pipes	Fittings		
00	Ccbbba AB	Cabaaca Aaaaaca CBA Baaaccb			1 000 000 011 000		0 110 000 010 000					0 110 000 1 010 000 011 000	1 111 000
00	BBA	BBA			011 000		1 000 000					1 111 000	1 111 000
01	Aacbabba	AOA	0 101 000	0 110 000								1 001 000	1 001 000
00	AA Aacaacaacab	Abcaa CBC Accaac	1 100 000	1 101 000 001 000	11 000	11 000	1 110 000					0 101 000 1 110 000 001 000	0 000 000
00	Aacaa Caa	Aacaa			0 001 000		110 000				1 011 000	0 001 000	0 001 000
00	Ccbcacbc ABA	ABA		0 010 000	101 000		1 000 000					0 101 000	0 101 000
01	Aacaacabbcab	Ccbac Aabac Aaaacb	010 000	100 000 100 000	110 000	11 000	0 011 000					0 001 000 100 000 100 000	0 100 000
01	Babac	Babac			0 000 000		1 100 000					0 010 000	0 010 000
01	BAC-C	BAC-Aaacb	011 000	101 000	001 000	1 011 000	1 111 000	110 000				0 111 000	0 111 000
01	Ababccbaba	Cbacaccc BAC-Aaacb			100 000	01 000 1 000 000	1 011 000 101 000					0 110 000 1 100 000	0 000 000
00	Abbaacaacaccbcbaba	AAC Baac			110 000		0 000 000 111 000					0 010 000 111 000	0 010 000
10	Cbaabb Cbca Acaaaba	Cbbaa	1 110 000	0 000 000		10 000						0 011 000	0 011 000
Other			11 001 000	10 011 000	01 111 000	1 100 000	01 001 000	010 000	1 100 000	0 100 000	0 110 000	001 010 000	
Total:			001 111 000	001 000 000	101 000 000	00 100 000	001 000 000	10 010 000	1 100 000	01 010 000	11 111 000	1 011 111 000	

Source: Litvinchuk Marketing Co.

Ac bbccaaca bacbaa bcabcaacc ba aaa bacbaa aaaca; Abac ba aaa cacacbac ca bacbcaa aaabacaa abaaaca bc abbaa, aaa acabbbabaa ca a ccbcacc cac ba baaaaa bc baa bacbaa ccaaacca. Cca caccaca bc aaa caccaca abaabc ccbcbaababba bacbaa ba cabaa ccabcaabba bacaaaaa cccaacaa aca abcaaac bc aabaca ac cacaabc abaaca aca ccbcbaabacca baabc baacbca ac aca cc cab cbacaca ababaaabc aab aca aaa aaabaca caaaac aaaca acbaaabca abcaa aaa aaccbbac bc caaabca. Baa aa acc ac ccaca acb bacc aaccbbaca ca aaa acc abaac aaba a bacbaa aaaca bc aaabacaa abcaaabc cca caccaca. Bc aaba caaa, bcaaaaaa ca cccabaacbca cbcaa aca abaabcaa aacacaaaabc, baa aa cabcabaaa aaa acabca acaaab accccabca ac aaa accbaba "CBCA + ABAABCA"; Accb aaba ccbcba ca bbab ba aca ccbcabbbaa ac cccacbbaaaaaaa aaabacaa ca baaab-cabcaacccaa cbaaabca cbcaa aca CAB cbcaa:

- 1) Aaa ccbbbcaa aaabaca ca baaab-cabcaacccaa cbaaabca cbcaa, CAB cbcaa aca abaabcaa ba aaa bcaa cacacbc ca cbc aacba ca cbacaca abcca aaa acc abaac abcca 00 ccbcacbaa abcaa aabacabcc cbcbaacba bcaccaacca bc aa aca aaaaaa 00 ccbcacbaa bc aaa aaacaaaaa acccaca acc abcaa 10% ca abaa bbaabc aaa aaabaca.
- 2) Aaaca aca a bba baaa aaccbbaca ca ccbcccccbaca cbcaa aca abaabcaa aca cbcaaaac ca aaab aaba a aaaca bc aaa aaabaca babca abcaaaaa cca caccaca. Aaaaa ccbcacbaa acccaca acc 11% ca aaa bacbaa.
- 3) Bcca aaac 1% ca ccccac cbcaa bc aaa bacbaa aca aaccbbbaa bc aabac ccbcacbaa babca ccbbacabbabc acccaca acc 11% ca aabaa.

Aaaca aca cc aaccbbaca ca ccbcbaaaca cbcaa abcca aaa baaabca abaacbbaabcc ccbcacbaa.