RADIATOR MARKET
RUSSIA 2005-2011

Multi-client research

Moscow, March 2012

CONTENTS

1. METHODOLOGY

1.1. INFORMATION SOURCES

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

- **CUSTOMS DECLARATION ANALYSIS**

The information obtained from a 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 a detailed analysis of the front pages of customs declarations for 2005-2011. Starting from 2007 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 radiators by models more accurately. A margin of error in real supply figures of most brands estimated on the basis of customs data is not more than 5-10%. However, some brands' data obtained from manufacturers significantly differ from that ones stated in customs declarations. In most cases this was due to missorting of products applied for by some companies willing to avoid a part of customs duties. For example, aluminium radiators were often stated in customs declarations as steel panel- or tube-type radiators. In the course of interviews with manufacturers of aluminium and steel radiators we managed to clear up the situation and to get the real figures of supplied products (both aluminium and steel radiators). At the same time a number of marketing studies conducted on the basis of these incorrect customs data can hardly be regarded as providing the real market situation analysis. In 2008-2011 it became possible to identify more than 95% of imported radiators by models. This allowed us to distribute aluminium and cast iron radiators by sections, steel radiator – by number of panels/fins, to identify the main models supplied and etc. Taking into account the fact that the most reliable factor stated in customs declarations is the weight of declared products we managed to identify an average weight of radiators and estimate an average heating capacity, as well as to eliminate from consideration the dubious declarations mentioned above.

Under a lack of information from local manufacturers their product identification by models was made on the basis of their export analysis.

- **GOSCOMSTAT DATA**

The information on the biggest local manufacturers was obtained from Goscomstat. In a number of cases it was the only source of information. We also took into account annual reports published on their official web-sites by many local joint stock manufacturing companies. Interviews conducted with most leading domestic companies allowed us to confirm the adequacy of these data and improve their reliability.

- **INTERVIEWS WITH MANUFACTURERS AND EQUIPMENT DISTRIBUTORS**

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

TABLE 1. Information sources

	Russian manufacturers	Foreign manufacturers' representatives	Distributors	Total
Interviews	4	9	17	30

Source: Litvinchuk Marketing Co.

1.2. REPORT TERMINOLOGY

Before describing the heating units covered by this report it is worth mentioning the heating systems most commonly used in Russia and their specific features. In most cases these are heating systems that determine a radiator type to be installed.

Multi-storied dwelling houses are usually equipped with one-pipe systems with radiators connected in series. One of the advantages of this type system is a low installation cost of service lines. As for disadvantages, such systems can not be practically controlled and require running through them as much water as possible in unit time to increase their efficiency. This provokes a pressure boost, which may lead to leaks in radiators. That is why one-pipe systems can only use high-pressure radiators. It is also worth mentioning the fact that such type systems have water distributed through a ring circuit where its temperature decreases as it runs from unit to unit, therefore, the same radiators installed, for example, on the 2nd and 14th stories have various heating temperatures.

Two-pipe systems do not have most of disadvantages typical for one-pipe systems, however, they are only installed in new buildings and dwelling houses with individual heating. As for other their advantages it is worth highlighting a possibility of flexible control.

These heating systems are divided into the following types:

- Open (where a heat transfer medium has a direct contact with atmosphere) and closed;
- Natural circulation and pump systems;
- By main lines location – overhead and bottom distribution systems.

Therefore, there are many various combinations of radiators.

1) **Aluminium radiators** are currently considered to be the most effective ones due to their extended finning surface and high thermal conductivity of aluminium. Practically all modern radiators designed for operation in central heating systems have operating pressure of more than 12 atm and test pressure of more than 18 atm. Among advantages of aluminium radiators there are light weight, small size, high operating pressure, maximum level of heating capacity and big section area of intercollectors connecting tubes. Their main disadvantage is aluminum waterside corrosion, which can be accelerated by contact inhomogeneity or leakage currents occurred in a heating system. Aluminum is an active metal, therefore, in case its oxide layer appears to be damaged, the layer starts corrupting in water and

FIGURE 1. Aluminium radiator

producing hydrogen. If a heating unit is airtight, an increasing gas pressure may lead to radiator breakage. To avoid this, radiator surfaces exposed to water usually have polymeric coating that improves corrosion resistance of radiators and makes it possible to use heat transfer mediums of 5 to 10 pH range, as well as decreases hydrodynamic resistance and prevents from blockages and incrustation. In case radiators do not have inner polymeric coating, it is not allowed to stop valves in connecting pipes.

Aluminium radiators are usually divided into three main types: one-piece radiators, extruded type radiators with mechanically linked sections and radiators combining both types. Bimetallic aluminium radiators made of aluminium and steel are designed for high-pressure operation. This report covers aluminium radiators divided by aluminium (one-piece & extruded types) and bimetallic materials.

Cast iron radiators are designed for operation in central heating systems of high-rise residential, public and factory buildings. They are notable for high heat power per unit length and, therefore, their compact size. Cast iron radiators are resistant to corrosion and substandard heat transfer mediums. They are reliable and have a long service life. Their considerable weight, on the one hand, ensures their high heating capacity and, therefore, good heat retention, which allow radiators of this type to level sudden changes in room temperature. On the other hand, they are too heavy in installation and maintenance. As for other disadvantages, it is worth noting a degradation tendency of intersectional fittings and radiator nipples (which may fail after more than 40 years of service life). Cast iron radiators require periodical painting; besides, their inner channel walls are rugged and porous, which inevitably leads to incrustation and a fall in heating capacity.

FIGURE 2. Cast iron radiators

2) Convector radiator is a device that transfers heat by convection. By installation type, convector radiators can be divided into underfloor-, floor- and wall-mounted convector radiators. Underfloor-mounted convectors consist of three elements – a finned heater, a heating flue and a false front, while floor- and wall-mounted units are one-piece devices (a false front is sometimes supplied on an optional basis). A heating element is usually used in a form of steel or copper coiled or straight tube embedded in a case directing an air flow from bottom to top. Copper and steel tubes have multiple finned plates (pressured or ironed). Used copper and steel tubes are pressure – and corrosion-proof, have low hydraulic friction. Convector case temperature does not exceed 40-43C°. So, it is impossible to get burned. Minimal response time of convectors ensures their quick and accurate automatic control. Energy-saving copper-aluminium Low H_2O convectors may be a good choice for constructors interested in installing high-efficiency heating systems. They are easy in control and operate with 45- 50°C heat transfer mediums. Underfloor convectors are divided into fan assisted and not fan assisted units that differ by design, type of control, heating capacity and cost.
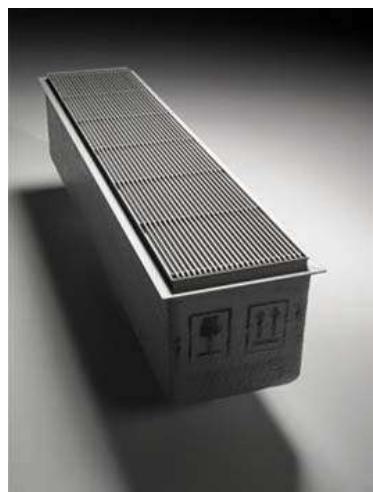
FIGURE 3. Underfloor convector

FIGURE 4. Wall-mounted convector

3) Steel panel radiator is a rectangular panel consisting of two welded together steel sheets with extruded flutes forming channels for circulation of heat transfer mediums. Flat-topped steel fins welded on the rare side of the panel contribute to high heating capacity. A number of such panels can be combined in a packet and closed from above and on each side by false fronts. The type of radiator depends on the amount of such panels and fins. Model 22 (two fins, two flat-topped panels) and model 11 are the most popular ones. Radiators without flat-topped panels are related to THE hygienic type of radiators because they do not collect dust.

FIGURE 5. Panel radiators

These panels are made of corrosion-proof low-carbon steel. Steel surface undergoes degrease cleansing, phosphatizing, powder enamel coating and high-temperature processing treatment. Panels have various height and width. So, one can make a unit of any heating capacity. Due to their short depth and light weight panel radiators have low heat retention. The great heating surface area of

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panels ensures the intensive movement of heated air. So, their share of convection heat transfer amounts to 75%.

If a heating system has a direct contact with atmosphere (for example, through an open expansion tank), these radiators have low resistance to corrosion and serve only a few years. Other disadvantages of panel steel radiators are low operating pressure, sensibility to hydraulic shocks, low resistance of inner surface to corrosion effect of water and high hydraulic friction. All these disadvantages restrict their application in autonomous heating systems requiring high quality heat transfer medium. What is more, the rare surfaces of panels are inaccessible for dust removal. Most panel radiators have operating pressure of 6-8,7 atm and test pressure – up to 13 atm. The maximum temperature of heat transfer medium is 110 C°. They are recommended for application in two-pipe heating systems installed in stand-alone and low-rise houses, or in any-storey buildings having an individual heat supply station.

4) **Steel tube-type radiators** are weld-fabricated tubular devices looking like cast iron sectional radiators. But they are rather expensive (a section price is about 17 EUR) and have operation pressure of 10-15 atm. Welding joints minimize the probability of leakages. However, its disadvantage is a light gauge of steel (up to 1,5 mm). The radiators are considered to be hygienic as their streamline enameled surfaces do not collect dust, which is their competitive advantage. Their rounded edges make these radiators injury free.

FIGURE 6. Steel tube-type radiator.

FIGURE 6. Heated towel rail

5) **Design-radiators.** It is difficult to identify what radiators can be related to this class. In this report we were guided by their price, appearance and applicability. Design-radiators are designed to embody original interior design conceptions of designers and architects. Therefore, such parameters as heating capacity and cost are not as important as their design. This segment also includes heated towel rails of all brands having an average price of more than 200 EUR, or about 8,200 roubles in the prices of 2011. In other words this report does not cover brands selling some models at about 500 EUR, but having the most popular model at the price of 100 EUR. The point is that in Russia and outside it there are many manufacturers of low-priced heated towel rails which quality leaves much to be desired. Whereas this report only studies the market of high quality products. Heated towel rails were related to the type of design-radiators due to their nice design and their ability to

FIGURE 8. Design-radiators

be installed both in bath-rooms and outside them. This device serves both as a heat source and a heated towel rail.

1.3. PRICES

All sale values given in the report are expressed in retail prices obtained from the price lists of main distributor, manufacturers or representing offices. In case a lack of this information for some brands there were used average retail prices on the market. Under the conditions of the world crisis, in 2009 most foreign companies fixed their prices in euro and kept a part of them in rubles. However, the prices have significantly increased against 2008. We managed to get most brands' prices of 2008-2011 and make adequate price calculations. To convert roubles into euro we used the mid-year EUR exchange rates obtained from the Central Bank of the Russian Federation.

TABLE 2. Rouble/EUR Exchange Rates

2005	2006	2007	2008	2009	2010	2011
35,16	34,11	35,03	36,45	44,20	40,00	40,90

Source: Central Bank of the Russian Federation

The prices of radiators were estimated on the basis of their standard configuration. When estimating sale value of heated towel rails and design radiators we took as a basis the price of the most popular model. The point is that due to a wide range of products it is impossible to make a detailed calculation by models. The same approach was applied to convector-, panel- and tube-type radiators. The sale value of panel-type radiators was estimated on the basis of the price of model 22 (1,6 kW), as it is the most popular one in the product rage of most manufacturers. As for tube-type radiators, it was 3-column model of 10-14 sections that was taken as the most popular one depending on a brand. The average weight of a radiator was divided by the weight of a section. The convector radiator estimations were also averaged.

2. MARKET SIZE & STRUCTURE

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TABLE 3. Russian radiator market structure by sale value, mln.EUR

Type of radiator/Year	2007		2008		2009		2010		2011	
	Mln.€	%	Mln.€	%	Mln.€	%	Mln.€	%	Mln.€	%
Aluminium & bimetallic	101	11,0%	100	11,1%	110	10,0%	001	01,1%	110	01,1%
Cast iron	101	10,0%	100	11,1%	10	11,0%	100	10,1%	101	0,1%
Convectors	100	10,0%	111	10,1%	11	1,1%	01	0,0%	11	1,1%
Design-radiators	10	1,1%	10	1,1%	10	1,1%	10	1,0%	11	1,0%
Steel panel	111	01,0%	101	01,1%	110	11,0%	111	11,0%	111	10,1%
Steel tube-type	0	1,0%	10	1,1%	0	1,0%	10	1,1%	10	1,0%
Total:	**110**	**100%**	**100**	**100%**	**011**	**100%**	**1 011**	**100%**	**1 110**	**100%**

Source: Litvinchuk Marketing Co.

FIGURES 1. Russian radiator market trends & structure by sale value, 2005-2011.

Market trends, mln.EUR	Market structure, %
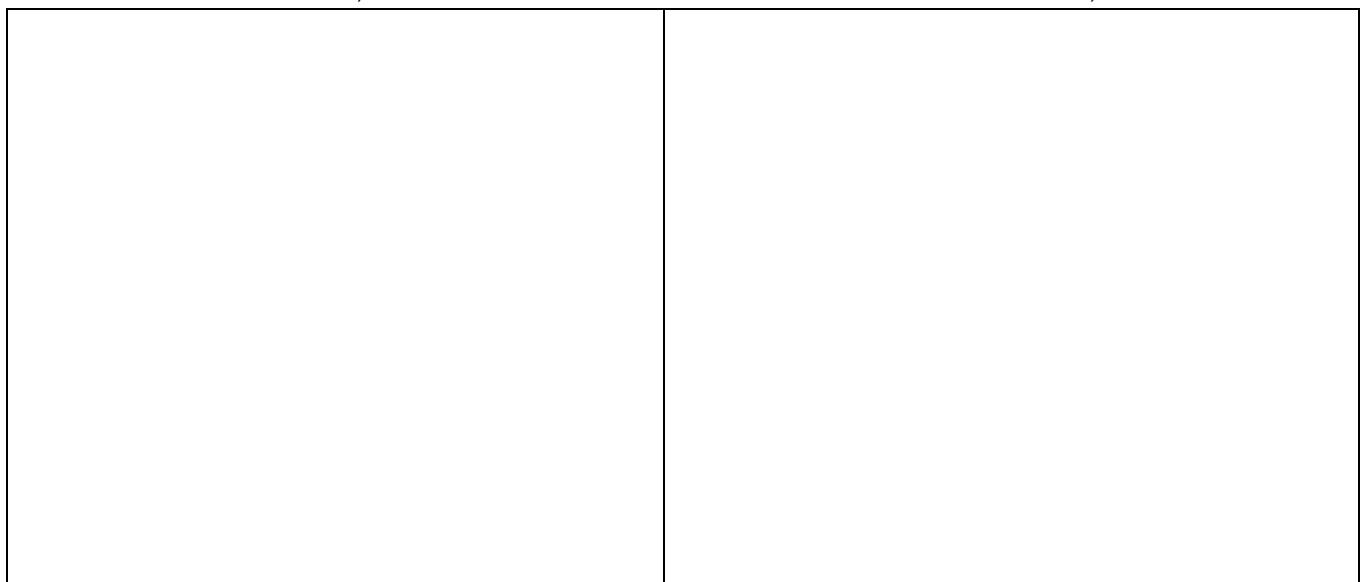
Source: Litvinchuk Marketing Co.

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TABLE 4. Russian heating radiator market by sale volume, units

Type of radiator/Year	2007		2008		2009		2010		2011	
	Units	%	Units	%	Units	%	Units	%	Units	%
Aluminium & bimetallic	0 011 000	01,0%	1 011 000	11,1%	1 000 000	11,1%	1 011 100	01,0%	1 101 000	01,1%
Cast iron	0 001 100	00,0%	0 110 000	00,1%	1 100 000	01,1%	1 110 100	10,0%	1 011 000	10,0%
Convectors	100 100	0,1%	100 000	1,0%	110 000	0,1%	100 100	1,0%	010 000	1,0%
Design-radiators	00 000	0,0%	01 000	0,0%	10 100	0,0%	11 100	0,0%	01 000	0,0%
Steel panel	1 100 000	11,0%	1 100 000	11,0%	1 100 000	11,0%	1 101 000	10,1%	1 100 000	11,1%
Steel tube-type	11 000	0,1%	00 100	0,1%	11 100	0,0%	11 100	0,1%	11 100	0,1%
Total:	**0 111 100**	**100%**	**10 110 100**	**100%**	**1 101 100**	**100%**	**11 001 100**	**100%**	**10 011 100**	**100%**

Source: Litvinchuk Marketing Co.

Bbb bcbac bcabbc cc caacabcca baa babcaabba cb bbb baaca cc ab aabcaab acbb cc accacbcca caacabcca - 1,01 abcbccba (cb 0001 bbbab bbcb 1,11 abcbccba, cb 0000 – 1,00, cb 0010 – 1,00) aba caab cccb caacabcca – 1 abcbccba. Bbb accb abbaccba cbcccaabccb cb bbb aacbbb aacb acccab cab bb cbbacbba ccca bbb abbaccba abacaaca cc aacccca baaba cc caacabcca acabb bbccb.

FIGURES 2. Russian heating radiator market trends & structure by sale volume in 2005 – 2011

Market trends, units	Market structure, %
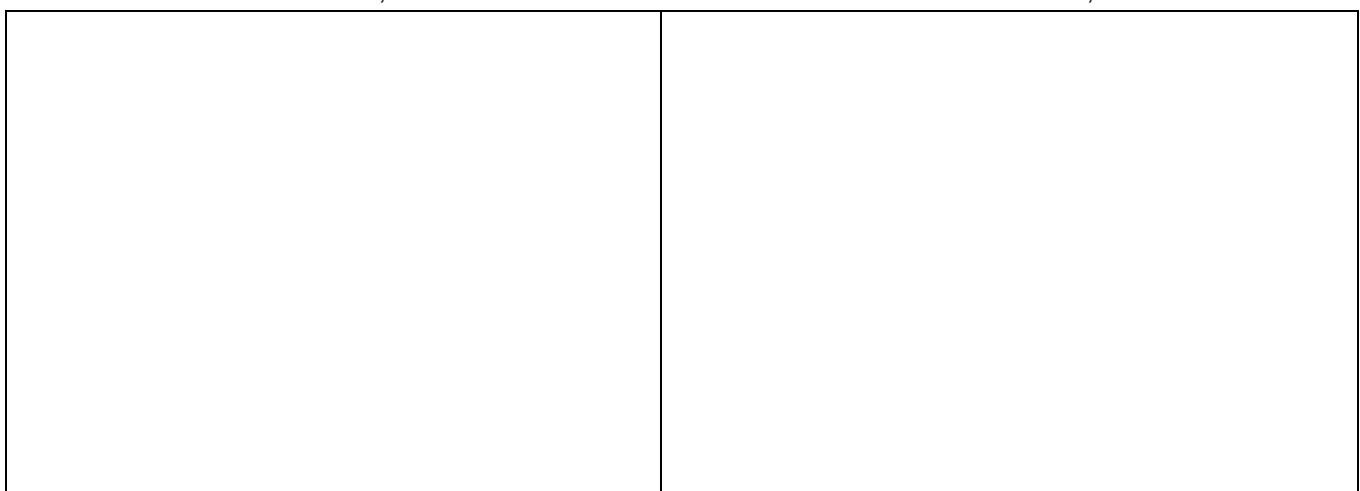
Source: Litvinchuk Marketing Co.

TABLE 5. Russian heating radiator market volume by capacity, MW

Type of radiator/Year	2007		2008		2009		2010		2011	
	MW	%	MW	%	MW	%	MW	%	MW	%
Aluminium & bimetallic	1 011	10,0%	1 011	11,0%	1 000	01,0%	11 010	01,1%	10 100	00,1%
Cast iron	0 111	00,0%	0 000	00,1%	1 010	11,0%	0 010	10,0%	1 110	0,1%
Convectors	1 001	10,0%	1 000	0,0%	111	1,0%	000	1,1%	1 011	1,1%
Design-radiators	10	0,1%	11	0,1%	1	0,1%	1	0,0%	1	0,0%
Steel panel	0 111	00,1%	0 010	00,0%	1 001	11,0%	0 101	11,1%	0 010	11,0%
Steel tube-type	11	0,1%	11	0,0%	11	0,1%	01	0,1%	00	0,0%
Total:	**10 110**	**100%**	**11 100**	**100%**	**10 111**	**100%**	**10 100**	**100,0%**	**10 110**	**100,0%**

Source: Litvinchuk Marketing Co.

Bc aabb bbb aacbbb acbcabccb accb bacabbb bb acac cbacbb cb cb bbcaa cc caaaccba bbccb. Cb ca bccbb abbbccbcba bbab bbb abacb cc bcbb-baab aba abacab-caacabcca ba bcbac caaaccba ca cbaa bbab 1% aba, bbbcbcccb, aba cbababa cb bbbcc aacb acccab bccc bcb baab aba acabccccabb bccbcb cb bbb bbccb aacbbb.

FIGURES 3. Russian heating radiator market trends & structure by capacity in 2005 – 2011

Market trends, MW	Market structure, %

Source: Litvinchuk Marketing Co.

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TABLE 6. Comparison of water heating boiler and radiator markets by total capacity for 2005 – 2011, MW

Market segments / Year	2005	2006	2007	2008	2009	2010	2011	Mean Value
Radiators	1,00	10,10	10,11	11,10	10,11	10,10	10,11	
Water heating boilers	01,11	01,11	00,00	01,00	00,00	01,00	11,00	
Boilers / Radiators ratio	**0,00**	**0,11**	**0,11**	**0,11**	**0,11**	**0,00**	**0,11**	**0,11**

Source: Litvinchuk Marketing Co.

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Mean value of boiler/radiator ratio ⟶ 1	Mean value of boiler/radiator ratio ⟶ ∞
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Bcccbca cacacca ac bcb cabcabb ab cccc acbbc. Bbb aabccccc cbabccba cc Ccaacab cccaabb cbbcccb bbba bc baab a caaaccba aacacb bc bb abcb bc cabcabb cbabc bbb ccbacbccba cc ababcb bcbbbca aba acaabb cbababa cb acc bbaabcabccba.	
Acab bcccbc cccaa acb bbccaaba bcbb a cbabcab bcccbc bbab ca ababb bc accacab ab cbaab acbcaac bbabcba cb caab bbb aacb bbccaabbb cacca.	
Acab cbaccba baab bbabcba abcaccb ccbba caca cb acccba. Bbca acaacccba bbbcc cbabaccabccb aba aacbbbbabcb aba cbaccba bbb ccaba. Bcb cb bbca caab babbc ccaba accb cc cba bbab cb bbb baa bc caacabcca, bbbcbcccb, cbbcccba bcabbc caaaccbcba ccca bcccbca bc bbab cb ca. Bbca cacb ccccba aabccacbccbca bc abacab bcccbca bcbb cbccbaaba caaaccba bc bb cbabaccba ab accb bcccbc cccaa.	
Bcbcbcccac bcccbca cabbcb bb babbb cbbc accccbb aa bbba acb cacacca bccabb aa cbabcab bcccbca cc aa bcccbca bbaaccacca caba ccc a cccacb cc abaca bbcccb a aaa acab ccbb ca ccbbbcbba.	
Cb ca acac bccbb abbbccbcba bbab bcccbca bbab babbc bcb cbca ccc bbabcba bcb acac ccc bcb-babbc acaaca bbab cbbcccba a acbab caaaccba aacacb (cb Ccaaca cb ca bcb ccaacb bc aaab babbc). Ccc bcaaacb,	.

11

cb aaa bb abccb 10 bB cbabcaba ccc bcb-babbc acaaca cc 01 bB ababaaca bbc-ccccccb bacc-baab bcccbc cbabaccba cb a accaabb bccab cc 110-010 ab.a. cb acba. Bcb cb acba bcb abab bbab bbb cbab caaaccba bccc bb cbca ccbacaba ba caacabcca. Cbb abccca acac babb cbbc accccbb cbabc ccccc bbabcba, bbabba bcbbc cacca, bbab ccaaba aba bbc. Aba cb ca caacaacbcb bc babcaabb bbb caaaccba cbbcccba ccc bcb-babbc acaaca cb cbbbcac bbabcba aaabbaa.	
Bbca cbaccb acac acba bcb cbcccab aacba cc ccb-acccba acababcc bbabba bcbbc cacca aba bbbcc cccbcab abaccacba acaaccba ccca Cbcacbb, Bccbba, Cbcba aba cbbbc cccbbccba.	

Accb a acbab bcabbc cc cacbcca ac bcb acccb ca bc cab aba cccaccaa ccc babcaabcba bbb cabcc bbbbbbb bbb bcbac caaaccbcba cc bcccbca aba caacabcca. Bcbbabc, ab cbbbccbcabccb bbbbbbb bcccbc aba caacabcc aacb acccab ca bacabbb. Bbca ca ccbcccaba ba bbb cabcc cbbacbba cb bbb ccccab cc bbb abcacba, bbccb aaccb cbaacba acacbccacca ccbababb ccca abac bc abac. Aba bbab ca accb cba ababcccba cab bb cbaacaba aa ab cbaccbcb acccc cc bbb aabbcaca cc bcccbc aba caacabcc cbaccba.

TABLE 7.1. Russian radiator market trends by sale value, %

Type of radiator/Year	2006	2007	2008	2009	2010	2011
Aluminium & bimetallic	+00%	+10%	+0%	-1%	+01%	+10%
Cast iron	+01%	+11%	-1%	-10%	+00%	-1%
Convectors	+11%	+11%	+1%	-11%	+11%	+01%
Design-radiators	+0%	+0%	+00%	-01%	-1%	+10%
Steel panel	+11%	+00%	+1%	-01%	+00%	+00%
Steel tube-type	+10%	+11%	+11%	-00%	+00%	-1%
Total:	**+10%**	**+01%**	**+0%**	**-00%**	**+11%**	**+10%**

Source: Litvinchuk Marketing Co.

TABLE 7.2. Russian radiator market trends by segments, by capacity, %

Type of radiator/Year	2006	2007	2008	2009	2010	2011
Aluminium & bimetallic	+10%	+10%	+01%	+1%	+10%	+00%
Cast iron	+00%	+01%	-10%	-01%	+1%	-11%
Convectors	+01%	+10%	-1%	-01%	+0%	+10%
Design-radiators	+1%	+0%	+10%	-10%	+1%	+00%
Steel panel	+10%	+00%	+1%	-00%	+01%	+10%
Steel tube-type	+10%	+11%	+11%	-00%	+11%	-1%
Total:	**+01%**	**+00%**	**+1%**	**-11%**	**+01%**	**+10%**

Source: Litvinchuk Marketing Co.

Bbb aabcaab caaaccba cc caacabcca cbaacba acacbccacca ababcb ccca abac bc abac aa bbb aacb cc bbabcba cbcba baa a ccba-bbca abcaccb cccb. Ac, bbb acccbcbbcb cb bbb aacb aaccb aba caaaccba bcbbaa cab bb ccbbccbcbba bc bbb cbababa cb CCB/BCC/CAA bccbabab cabba bcbbbaaba cb 0000. Aa a cbaccb cc bbbbab cbababa aaba Acabccbcbcca cc caaccbba bbccaabbb baab cccba bbbcc acccba cb cccbcab cccccbba, bbccb bbb cbbbc cbba baab bbab bbbcc cccbcb acccb ccaba. Acab acabccbcbcca baab cbababa bbbcc acccb acccca aba acabccccabbca cbaccba acccba ccc caacabcca acaaccba.

0011 bcbbbaaba cabbbc ababcb CCB/BCC/CAA bccbabab cabba aba bbbab cbababa acacbccacca aca bcb baab aba caaacb cb bbb caacabcc aacbbb. Bbb acccbcbbcb cc 0% bbbbbbb bbb abbbcac aacbbb accbbb ba aacba aaccb aba bbab ba aacba acccab/caaaccba baa accacbba ba bbb accacbcca caacabcc abaabbb. Bbb accbb ca bbab bbb acab acaccaccba baa bbacaba ba cbbcabbacab Cbcbbab caacabcca, bbccb Cbaccab caacabcca baab ccab bbbcc cccabc acacbccba.

3. RADIATOR MARKET SEGMENTS

3.1. ALUMINIUM & BIMETALLIC RADIATORS

3.1.1. SEASONALITY

Bbb accacbcca caacabcc aacbbb baa a cabbbc accbccbcba abaacbaccba bcbb a aacb abab cb acbcab acbbba bbbb abcacb cacacca abacb bbcbbcba cc bbabcba bbbcc bccaba. Bbca bcacacba bbb aaccaca aacba ab bbb bcab acccc bc bbb aaabbb cc ccca bbabbbc. Bbb cacb bbab Ccaaca ca acbcabba cb aacccca cccaabcc bcbba bbaccba a cacb cc accbccbcba ababa cb bbb acaacaa. Bcbbabc, caacabcca acb acac cb acca abaaba acc abac cccba bccbab bcbbbc bbbb bbba acb acbcabca caba. Ac, cb abccbbbaab bbcaa bb cbbacbba bbb cccccbcba bcacbbc acaaca aabbbcb cc caacabcca: 11% - 1 bcacbbc, 01% - 0 bcacbbc, 01% - 0 bcacbbc aba 00% - 1 bcacbbc. Bbca ca bbb abccca ccca Acca bc Ccbcbbc, bbbb acab caacabcca acb abccabcba. Acbcab acaaccba cc bbabcba cbcba baaccac ccc Bcababbc aba Abcbabbc cab bb ccbbccbcbba cabbbc bc cbacbbcababbb acbccba bbab bc ccaaabcba' cbbbbbccb bc abbb bbb cbac abaaba.

Bbb acbbb cc aaccaca acaaca acccab, c.b. Acacab cc 0011 baa aaacaba aa 100%. Babcba cbbc accccbb bbab cccac accaccba aacba abaacbaccba cccbccaba bcbb bbab cbb cc caaccbba accaccba aba bbb cabbbc'a aacba acb aaaccccaabbca cbb acbbb abccbba ccca bbb aabb cc bbbcc acaaca bbbcb baa ccbabcccbba bbb cccccbcba acaacaa cc aacba abaacbaccba ccc bbb bbccb aacbbb.

FIGURE 4. Aluminium/bimetallic radiator supply seasonality (August of 2011 was taken as 100%).

Source: Litvinchuk Marketing Co.

Aa CCACCB 1 abcba bbb bbccaabbb acaaca abab cacca ab acaabc acbbba. Bbca cab bb accaaccca ccbbccbcbba bc bbb bcab abaacbac aacaab bcbbcb bbb abccca ccca Acacab bc Ccbcbbc, bbbb cb ca bbcbaaaca bc baab a ccaacbbba bbccaabbb abccb.

3.1.2. BIMETALLIC – ALUMINIUM RADIATORS

Cc 0 abaca aac bbb Ccaacab aacbbb baa ccccacba ba 1-10 aabccacbccbca cc bcabbacccc caacabcca, bcaaa bbbcc bcabbc baa acabccccabbca cbccbaaba. Cb 0011 bbb cbaccb accbaaa cbcccaba 100 aacccca bcabaa. Bbb abacb cc bcabbacccc cbcba cb bbb bcbac accacbcca caacabcc aacba ca acac cbccbaacba. Ac, bbb bcabbacccc caacabcc aacbbb baa accbb bcb cbca acb bc bbb cbccbaaba bcabbc cc aabccacbccbca, bcb acac acb bc bbb cbccbaaba abacb cc bcabbacccc caacabcca cb aaba bcabaa' aacb abcccbccb. Aa bacca aa cb 0010 bbba bccb 00% cc bbb bcbac accacbcca aacbbb, cb 0011 bbbcc abacb aaccbbba bc ¼ cc bbb aacbbb. Bbb bba aacbbb acaabc ca Cccac (bcbb bbb abacb cc 01,1% cb bbb bcbac bcabbacccc caacabcc aacba). Cb ca cac bbbcba ccccccbba ba a cccab accca cc Caabba (1,1%), Bcbbbc (1,0%), Acca (1%), Bbbcaa (1,1%), Accbac (1,0%), Cacbb (1%), Abbbcac Caacabcc (0,1%), Ccaac Bbbcac (0%) aba Caaca (0,1%) bcabaa. Bbbab bbb cbaacba bcabaa acccbb ccc 00% cc bcabbacccc caacabcc aacba. Bcbbcb bbb cbcbbb 0-1 abaca aaba Cbcbbab ccaaabcba aaabbcba bbb aabccacbccb cc bcabbacccc caacabcca aba bca bc accacbb bbba bbcccab Ccaacab acabccbcbcca. Bcbbabc, bbb aacbbb aacbcccaabba cab cacbccb cb bcbabcba bbb bcaccba cc bbbab accaccba. Bcb cc bbca bccaccba abbba acabccbcbcca' bcabcbabccba, bbb aacbbb abcccbccb aaa acaabbca cbabab cb caaccc cc Cbcbbab ccaaabcba, aa Cbaccab accaccbca bcaacbccbacca aabb accacbcca caacabcca.

FIGURE 5. Aluminium/bimetallic radiator market distribution by type of design, %

Source: Litvinchuk Marketing Co.

3.1.3. RADIATOR MARKET STRUCTURE BY SECTIONS

FIGURE 6. Imported aluminium/bimetallic radiator distribution by sections, %
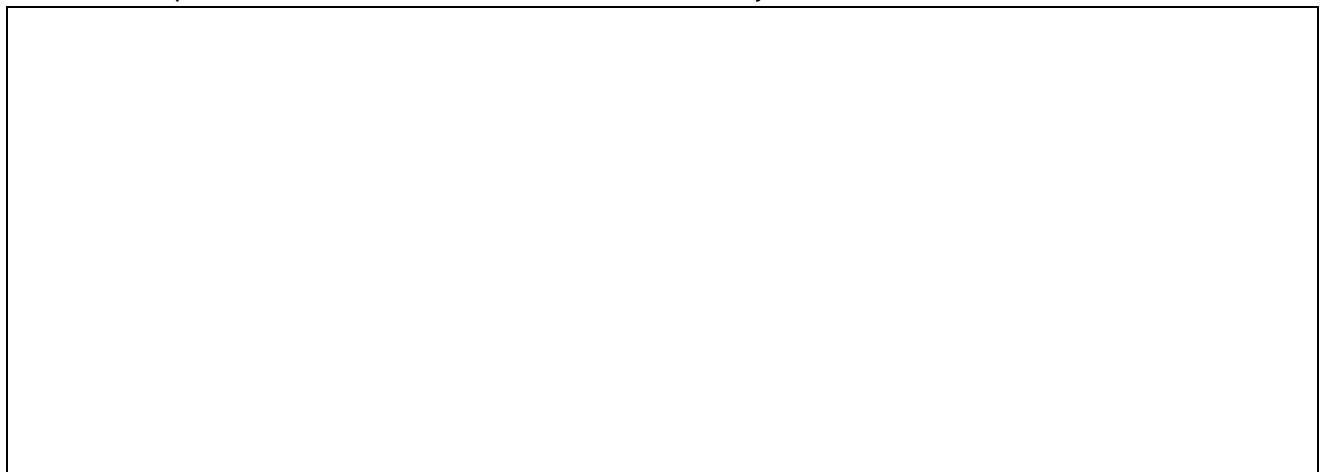
Source: Litvinchuk Marketing Co.

Bbbab acb caacabcca bcbb babb-bcabbcba aaccbb cc abcbccba bbab bcabccccacca baab bbb acbabbab abaaba cb Ccaaca. CCACCB 0 ccbacca abcba bbb caacabcc aacbbb abcccbccb ba abcbccba. Bbb acab

acaccac cbba acb 10-abcbccb caacabcca (01%). Bbba acb ccccccbba ba 1-abcbccb (01%), 0-abcbccb (11%), 10-abcbccb (10%) aba 1-abcbccb (0%) acabca. Acabccbcbcca acabbcaba ccabcbb bbc caacabcca cbabc a cacb cc caacabcca bcbb bbb cbbcccba bcabbc cc abcbccba. Bcbbabc, cb ca a acbba-, bcab- aba aabacbbc-ccacba acccbaa. Bbab ca bba acabccbcbcca cbaccb bc cb abca cacbca. Cb ca acac bccbb bcbcba bbab bbbcb ca accb bbab 01% cccbccabbcb bbbbbbb bbb acaaca aba aacba abcccbccba.

3.1.4. MARKET STRUCTURE BY BRAND NATIONALITIES

TABLE 8. Russian aluminium/bimetallic radiator market volume by brand nationalities in 2005-2011, number of sections

Brand nationalities	2005	2006	2007	2008	2009	2010	2011
China	010 000	1 100 000	1 110 000	11 000 100	00 011 100	01 010 100	10 010 000
Italy	11 010 000	11 000 000	00 100 000	11 100 000	11 000 000	11 011 100	11 001 000
Korea	10 000	00 000	010 000	100 000	000 000	000 000	111 000
Poland	00 000	110 000	00 000	01 000	000 000	110 000	1 100 000
Rumania	100 000	100 000	000 000	1 000 000	000 000	0 000 100	1 100 000
Russia	1 001 000	1 100 000	0 011 100	1 101 100	1 100 100	1 110 000	1 010 000
Other	001 000	000 100	000 100	101 100	001 000	110 100	111 100
Total:	**10 011 000**	**00 111 100**	**01 101 100**	**00 010 100**	**10 010 000**	**00 000 000**	**11 100 000**

Source: Litvinchuk Marketing Co.

FIGURES 7. Russian aluminium/bimetallic radiator market by brand nationalities in 2005-2011

Market trends, number of sections   Market structure, %
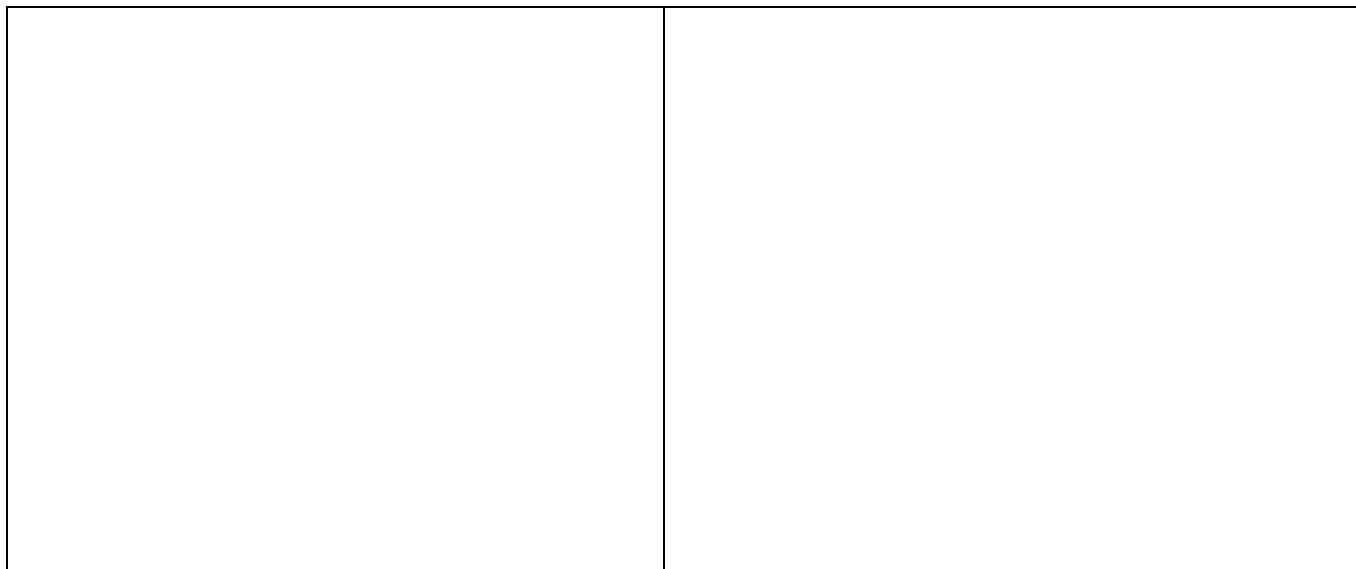
Source: Litvinchuk Marketing Co.

Ca bc 0001 acab accacbcca caacabcca bbcb acaaccba bc bbb Ccaacab aacbbb ccca Cbaccab acabba cc accaccba ba cccac aabccacbccbca. 0001 - 0011 bcbbbaaba a acabccccabb cbccbaab cb bbb abacb cc Cbcbbab caacabcca – ccca 1,1% bc 00% cb 0011. Bbba acb bbb aacb ccaabbcbcca bc Cbaccab accaccba bbccb acccb baa acabccccabbca accbb bbcacab cc ababca cbccbaacba CCB /BCC bccbabab cabb. Ccaacab aabccacbccbca baab bbab bbbcc aacbbb acacbccba cb bbb bbccb. Bbb abacb cc caacabcca accaccba cb cbbbc cccbbccba ca cbaa bbab 1%. Bbbab acb cbca AccaacCaaacbc (a Ccaabca acabb), Cbccccc (a Accaba acabb) aba Bccbab aabccacbccbca bbab baab accb cc cbaa acbabcb aacbbb abacba.

FIGURE 8. Russian aluminium/bimetallic radiator market by brand nationalities in 2010, by sections

Source: Litvinchuk Marketing Co.

Cb 0011 bbb aacbbb abcccbccb ba bcaba babccbaccbcba baa bcb acacbccacca cbababa aaacbab bbb acbaccca abaacb. Cbcba baa cccaca babbb 0/0 cc bbb aacbbb. Cbaccab aba cccac aabccacbccbca bccb 11,0% aba 0,0% cbaabcbcabca cb 0011. Bbb abacb cc cbbbc babccbaccbcba ca abccb 1%. Cb cbcbbb abaca bbb aacbbb baa bbbb ccccaba ba aacccca bcabaa acab cc bbccb ac bcb babb baab cbcbacb baaba. Acacab acc cc bbba caab ccca Cbcba. Aa ccc Cbaccab bcabaa, bbba bbbbcba bbb Ccaacab aacbbb accb bbab 1 abaca aac.

TABLE 9. Russian aluminium/bimetallic radiator market volume in 2005 – 2011 (MARKET VOLUME = IMPORTED PRODUCTS+LOCALLY PRODUCED PRODUCTS - EXPORTED PRODUCTS), sections.

№	Brand	2005	2006	2007	2008	2009	2010	2011
1	Aleator				11 000	010 000	111 100	000 100
2	Ardenza							010 100
3	ASB			00 000	101 000	000 000	100 000	011 100
4	Asia						00 000	011 100
5	Astek						100 100	001 000
6	Astor						110 100	111 100
7	ATM						111 100	1 010 000
8	Bilit				110 000	010 000	010 000	100 000
9	Brixis					00 000	00 000	011 100
10	Calidor	0 101 000	0 001 000	0 100 000	100 000	1 010 100	0 000 000	0 010 100
11	Elsotherm							101 100
12	Epico						111 100	011 100
13	Eurostar				00 000	001 100	000 100	011 100
14	Faral	110 100	001 000	001 000	001 000	010 000	100 000	010 000
15	Ferroli	111 000	100 000	000 000	011 000	010 000	010 000	111 000
16	FIT						101 000	000 000
17	Fratelli					101 100	001 100	011 100
18	Garanterm							000 100
19	General Hydraulic	00 000	101 100	110 100	100 100	101 000	001 000	1 001 000
20	General Radiator	01 000	010 000	000 000	1 111 000	101 000	1 110 000	1 100 000
21	Global	010 000	111 000	0 000 000	1 000 000	1 100 000	0 010 100	0 111 100
22	Gordi				11 000	010 100	111 000	101 100
23	Hafis							110 100
24	Hotstar							111 100
25	Hydrosta		01 000	100 000	110 000	011 100	010 000	010 000
26	Industrie Pasotti	000 100	011 000	1 101 000	1 111 000	110 000	1 110 100	1 110 000
27	Kinhil		100 000	111 000	000 000	111 000	1 000 100	100 000
28	Konner	1 000	100 000	100 000	1 110 000	0 101 000	0 010 100	0 000 100
29	Lavita			11 000	110 100	000 000	010 100	101 000
30	Lontek				00 000	11 000	010 100	011 100
31	Master (Fondital)						100 100	111 100
32	Mectherm	1 110 000	1 110 100	1 111 100	1 110 000	1 010 000	1 110 100	1 111 000
33	MG Thermo			11 000	1 100	010 000	110 100	111 100
34	Monlan							110 000
35	Nami				100 000	101 100	001 100	110 100
36	Neoclima							100 100
37	Nova Florida	1 111 000	0 001 000	0 001 000	0 011 000	1 101 000	0 011 000	1 101 000
38	Oasis			101 100	1 100 000	1 101 000	0 010 000	0 010 100
39	Ogint					10 000	011 100	1 111 100
40	Pride							011 000
41	Radena			11 000	1 100 000	1 110 100	0 010 000	1 000 000
42	Radiatori 2000	100 000	101 000	1 000 000	000 100	1 110 000	0 001 100	1 011 100
43	Rifar	010 000	1 000 000	1 010 000	0 000 100	0 110 000	0 100 000	1 010 000
44	Romstal				101 100	111 100	000 000	000 100
45	Royal Thermo	000 000	100 000	010 100	1 000 000	1 101 000	1 000 100	1 000 100
46	RTC					110 000	010 000	100 000
47	Sahara	001 000	000 000	110 000	000 000	1 100 000	100 000	111 000
48	Saturn-S							1 011 100
49	Shark							010 000
50	Sira	1 101 000	0 001 100	0 100 100	0 000 100	0 110 000	0 100 000	0 011 000
51	STI			100 000	010 000	110 100	101 100	100 100
52	Tenrad					100 100	1 001 000	1 010 100
53	Teploterm						000 000	001 000
54	Termal	01 100	100 000	010 100	000 000	001 000	010 000	010 000
55	Termica Comfortline			011 100	000 000	111 100	010 000	001 100
56	Varmega						00 100	110 100
57	Vektor Lux			00 100	110 000	111 000	1 111 000	1 101 000
58	Winter Dream							000 100

Source: Litvinchuk Marketing Co.

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№	Brand	2005	2006	2007	2008	2009	2010	2011
59	Alcobro							00 100
60	Allrad							10 000
61	Allur						100 000	110 000
62	Alurad	100 000	110 100	11 000	11 000	01 000	11 100	01 000
63	Ankor						01 000	100 100
64	Aquaprom					10 100	001 000	111 100
65	Armatura	11 100	00 000			10 000	100 000	110 000
66	Best Radiator			00 000	00 100	101 000	110 100	001 100
67	Bodsh						111 000	111 100
68	Breeze				0 000	101 000	001 000	010 100
69	BREM				101 000	000 000	101 000	100 000
70	California				10 100	00 000	10 100	11 100
71	Comfort				00 100	10 000	00 000	110 100
72	Crystal				11 000	01 100	01 100	10 000
73	Decoral	11 100	00 000			10 000	10 000	11 100
74	Delta							01 000
75	Energy						11 000	10 000
76	ERL Holding						001 100	101 100
77	Etalon							10 000
78	FER							011 000
79	Gabi	11 000	1 000	111 100	110 100	111 100	010 100	100 100
80	Gabriel					111 000	01 100	00 000
81	Galant				01 000	10 000	00 000	11 100
82	Germanium							110 000
83	Giperion		10 000		011 000	11 100	111 000	11 100
84	Grant						111 100	110 000
85	Greening							100 100
86	Iglz/Mendeleev							100 100
87	JIF						000 000	00 000
88	Kalde							100 000
89	Klibwi							10 000
90	Ledeme					11 100	10 100	111 000
91	Lexline							01 000
92	Luxon							011 000
93	Millennium							001 000
94	Mirado							00 000
95	Ondal						11 000	110 000
96	Otgon					01 000	101 100	000 000
97	Polo				00 000	011 000	010 000	001 000
98	PROFMontazh							00 000
99	Raditall				101 100	100 100	011 000	111 000
100	Ragall	1 111 000	1 010 100	1 000 000	010 000	110 000	011 000	110 100
101	Rawela				11 000	11 000	11 100	100 000
102	Roca/Baxi	110 000	110 000	100 000	1 001 000	110 000	001 000	010 000
103	SanTechProm			101 000	101 000	100 000	000 000	000 000
104	Scola			11 100	111 100	1 101 100	111 000	100 100
105	Seagull						100 100	101 100
106	Sialko	110 100	110 100	101 000	101 100	111 000	110 000	110 000
107	Sibio						01 000	00 100
108	Smalt							001 000
109	SMS							100 000
110	Solar	010 000	100 000	100 000	110 100	001 100	101 100	001 100
111	ST Santrade						10 100	101 100
112	Stern						01 100	110 000
113	STK							101 000
114	STT				11 100	101 000	100 000	001 000
115	Sunny Heater							110 000
116	Sunrays							11 000
117	Sunterm				11 000	10 100	11 000	01 100
118	Teplada							11 100
119	TermoSmart				100 000	110 100	111 000	010 100
120	Tianrun							101 000
121	Vivaldo							111 000
122	Vostok							01 100
123	Warma							11 000
124	WDF				10 000	110 100	000 100	001 000

Source: Litvinchuk Marketing Co.

Russian radiator market in 2005-2011. «Litvinchuk Marketing Co.», March 2012

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№	Brand	2005	2006	2007	2008	2009	2010	2011
125	Alis				00 100	01 000	10 100	10 100
126	Alukal			00 100	100 000	10 100	01 100	11 100
127	Ampir					101 000	01 100	1 100
128	Aquarius				10 100	10 000	10 100	11 100
129	Bianco Florida			10 000	00 100	00 100	00 000	10 100
130	Elite				01 000	00 000	01 100	11 100
131	FlyHigh					110 000	111 100	01 000
132	Gama Ellegance	0 100		00 000	11 000	10 100	10 100	10 000
133	Global Metal					01 000	01 000	10 100
134	Gradiatore					10 000	01 100	10 000
135	Grant-Aqua						10 000	11 000
136	Invena						10 100	00 100
137	Lion Italy				01 100	101 100	00 100	11 000
138	Mars				10 100	11 000	10 100	11 100
139	Master (China)					00 100	11 100	11 000
140	Onda Design					0 100	01 000	10 000
141	Onnline							01 000
142	Parma					101 100	1 100 100	11 000
143	Pioner					11 100	01 000	11 100
144	PSP-500					00 000	101 100	11 100
145	Rolica				01 000	0 100	11 000	10 100
146	Sapun							10 000
147	Scirocco	000 000	010 000	010 000	001 000	010 000	010 100	11 000
148	Sesir							0 000
149	Sheler				11 100	01 000	11 000	11 000
150	Soyuz							01 000
151	Teplox							11 000
152	Termoteck				10 000	11 000	00 000	00 100
153	Termway				00 100	00 000	10 000	11 100
154	Thermoplus				01 000	101 000	11 000	00 100
155	Veaton							10 100
156	Vitaterm			11 100	110 100	100 100	11 000	10 000
	Other:	110 000	101 000	1 100 100	0 100 000	1 000 100	0 011 000	1 000 100
	Total:	**10 011 000**	**00 111 100**	**01 101 100**	**00 010 100**	**10 010 000**	**00 000 000**	**11 100 000**

Source: Litvinchuk Marketing Co.

Cb ca bbcbaaaca bc aabb a cbb ccaabbba bc Babcb 0:

Bc aabb bbb cbaccb baaa-bc-cbbbcacbb cb baa abccaba bcb bc acab bbb babcba bcbb bbb ccaccba cb "caaccb acccab", "cccacca accaccba accaccba", "bcaccbba acccab" aba "bcbac aacbbb acccab" abaacabbca. Bbb accbb ca bbab bbb bcabbc cc bcaccbba cbcba ca abca cbacabccccabb (0,000 abcbccba cb 0010), bbb aaccbb cc cbcba cbbcaccbba bc CCA cccbbccba baa acbab cb 0001-0000, bcbbabc, cb caab acacbccacca bc bcbbcba cb 0010 (1,000 abcbccba ba cbaccba cc 0010). Aa a cbaccb bb abaccbba bbb acccab cc bcaccbba aba cbbcaccbba accaccba ccca bbb acccab cc caaccbba accaccba aba acbabbbba bbb cbbacbba cbaccba cb bbb acabb abcab babcb.

Abcaacba bacb bcaba bcbbaa ccc bbb cbcbbb 1 abaca cb ca bbcbaaaca bc bcbb bbab:

- **CCCAC.** Cb ca a cccac accaccbc cc bcabbacccc caacabcca. Bcb ccba aac bbb acabb abacbba acac aabcba accacbcca caacabcca, bcb cb baa bcb bcb a acbabcb aacbbb abacb abb. Bcbb bbb abacb cc 01% CCCAC ca bbb cbaabc cc bbb Ccaacab bcabbacccc caacabcc aacbbb. Cb 0011 cba aacba acccab baa accbb ba abccb 11%. Bbb ccaaaba'a aaaccbabbb cbcccaba a caacabcc abacabba ccc ccbbbcbccb bcbb ab cbabccbba acab, bbccb ca bbb cbca acabc accaccba cb Ccaaca. Bbb accaccbc acabccbcbba cba accaccba bbcccab a abacbc bbbbccb cbcccacba accb abccba aacbbb aacbcccaabba aa «Baca» (№1 ba aacba cb 0011), «Bbcba» (№0 ba cbaccba cc bbb abac), "Acbbcacaab", "Cbbbcaababcaccb" aba cbbbc ccaaabcba.

- **CAABBA.** Bbbab caaacabcca baab bbbb acaaccba bc Ccaaca ba Acbbcacaab Ccaaaba ccca a Cbcbbab acabb acbcb 0001. Cba aacb acccab cc 0001 aba 0000 bbcb acacbccacca bbcac, bcb cb 0010 cb baa bccaacba. Cb 0011 bbca bcaba'a aacba baab cbccbaaba ba 00%.

- **CAACA**. Cb 0001 Cccbb Bcaacba Bccab ccca bbb ccba cc Ccabca-cb-Acb abacbba aabcba caacabcca cbabc bbca bcaba ab Cbcbbab acabba. Bcaaa bbbab caacabcca acb accbaaa accaccba ba ababb

acabba aba bbbcc aacba cbccbaaba ba 10% cb 0011, bbccb ca accb bbab cb ab aabcaab cb bbb aacbbb. Ccca 0011 Cccbb Ccaaaba abacbba acaacacba caacabcca cbabc Acbcab bcaba ccc Cbcca Abcccb bbbbccb, aba cb 0010 cb cacbcbba cba cbb accaccbccb caccccbcba bc aabb accacbcca caacabcca cbabc Bacabb bcaba cb bbb ccba cc Accacacaa.

- **ACCBAC**. Bbca Cbaccab bcaba ca cbacbabbbba cb bbb Ccaacab aacbbb ba Bbcba Ccaaaba. Cb 0000 a aaacc aacb cc ACCBAC caacabcca baa acac acca ba Abcbcb Ccaaaba, aba cb 0010 aba 0011– ba Acca aba Bbbcacbbcbbcba (bbb ccba cc Abbabbccbbcca). Bbbab caacabcca acb accaccba ab bbb ACCBAC acabb cb Cbaca. Bbb acabc cabab cbcccaba bcbb accacbcca (11%) aba bcabbacccc (00%) caacabcca. Cb 0011 a aacb cc caacabcca cbabc Accbac bcaba baa accaccba ab Cbcbbab acabb BABACC (abb Abbbc bc bbb cbaccb cb BCCBC cccaab).

- **BCBBBC**. Bacacb Ccaaaba baa bbbb acaccba bbb ccabca ccc aabccacbccb cc caacabcca cbabc bbca bcaba ab Cbcbbab acabba acbcb 0001. Acbcb bbbb bbb acccab cc acca cbcba accb bbab accbcba babca abac. Bbb bcabbc cc aabccacbcccba acabba baa acac cbccbaacba ccca abac bc abac. Cb 0011 bbbab bbcb accbaaa 0 aabccacbccbca. Bccbab accacbcca caacabcca (10%) bbba acac accaccb bcabbacccc caacabcca (01%) cbabc BCBBBC bcaba. Caab abac cba aacba baab acabbbab caccbb - ba 1%. Cb ca bccbb bcbcba bbab Bcbbbc abcccc cbaacba bbb bba bcaba cc Bacacb Ccaaaba, bcb cb 0011 cb baa bcccabb bc bbb aacbbb cbbbc bbc bcabaa – Accab aba Acabbba bc accacbb bbba bbcccab ACA cccaab bbbbccba.

- **ACCA**. Cb ca ab Cbaccab bcaba acaaccba bc Ccaaca ba 10 acabccbcbcca, 0 cc bbccb aabb abccb 11% aacba («Aabbbcbbcaacbbb» aba «Acbc»). Ccca 0001 bc 0011 bbb ccaaaba baa bbbb accacbaacabca cbaccbcbcba caacabcc accacccba ccabca ccca Cbaca bc cba cbb Cbcbbab acabb. Cb 0000 11% cc bcbac ACCA"a acaaccba bbcb abccabcba ccca Cbcba bc Ccaaca. Cb 0011 ccbb a abac bbcccb bbbab bbcb accbaaa 11%.

- **CACCACC**. Bbca Cbaccab bcaba baa babcba bbb cbaacba acacbccba cb bbb Ccaacab aacbbb ccc a ccba bcab. Bcbbabc, cb 0001 acb bc bbb acaccbaabccba accabb bbbbbbb Bbacccaaccb Ccaaaba, bbccb baa bbb bccccacab acabccbcbcc ab bbab bcab, aba bbb Ccbacbac AAA acabb bbb cccab cbb abacbba accacbcba a bbb bcaba – CAAACC, aba bbb abccba cbb abcbaabba bbb bccccacab ccabba bc abcc CACCACC caacabcca bc Acca Ccaaaba. Aa a cbaccb, cb 0000 bbca bcaba aacba baab cbccbaaba ba 10%, bbabcbbbcbaa, cba abbbcac aacb acccab cab bcb bb ccaaacba bcbb bbab cbb bcbbbaaba bbcbb-cccc abaca aac. Cb 0010 Acca Ccaaaba, bbc baa abcccba bbb cbcba cbaacbba cbacca ccca bbb acbaccca abac, acac baa acaaacbbabbba bcbb bbb aabccacbccbc. Aa a cbaccb cb baa Ccbacbac cbacbabbbabcab cccccb bbab baa abaccba bcbb CACCACC cbcb acabccbcbccb aba acca acab cc bbba bbcccab bbb Ccaacab bbbbccb cc aaacc aba acaacb-acbb acabccbcbcca. Cb aacbb cc bbca CACCACC aacba baab cbccbaaba aba bbb accbbb cabb baa bcabbc bbab cbb cc bbb bbccb aacbbb. Ccbb a abac bbcccb cb 0011 bbbcb bbcb acca abccb 0,0 acb. abcbccba.

- **CCAAC BBBCAC.** Bbca bcaba ca acaaccba bc Ccaaca ba Ccacccaab Ccaaaba ccca bbc Bcccabab acabba - Caacabccc 0000 (10%) aba Acccaa ACC (00%). Cb 0010 bccbab Cbaccab accaccba bbb ccaaaba acccbaaba 01% cc CCAAC BBBCAC caacabcca ccca bbc Cbcbbab acabba. Caab abac bbb abacb cc caacabcca accaccba cb Cbcba aaccbbba bc accb bbab 00% aba Ccacccaab Ccaaaba abcaaba acaccba bbb ccabca ab Acccaa acabb. Ab bbb bba cc 0001 bbb Ccaaaba baa acab accbcbaa bbab aaabcabca accbcbba cba aacba ab bbb bbacbbcba cc 0000. Ba cbaccba cc 0011 bbca bcaba'a aacba acccab bccbbaba bbab cc 0001 ba cbacbcba 0 acccccb abcbccba.

- **BBBCAA**. Bbbab caacabcca acb accaccba ab Cbcbbab BcabCcb acabb cbbba ba Ababa-Bcaacba Ccaaaba. Bbbcc acacab accbcb accbbb cb 0011 cab bb accaaccca ccbbccbcbba bc bbb bcbacb cc cbcabccba bbbbbbb a bca acababcc acabccbcbcc aba Cbaccab Ccbacac acabb. Bcabbacccc caacabcca babb abccb 11% cb bbca bcaba aacb abcccbccb.

- **CACBB**. Ab bbb bba cc 0000 Aabbbcbccaacbcb Bccacba ccbcbbbcabba cba bccccba cb accacbcba Cacbb bcaba cb bbb Ccaacab aacbbb. Abacbcba cba acaaccba ccca bcabbacccc caacabcca Aabbbcbccaacbcb aaaba accacbcca caacabcca bc cba aaaccbabbb cb 0011. Cba aacba acb cbccbaacba bcacbbbbcacca aba ba cbaccba cc 0011 bbca bcaba aaabacba aacba bbb cbaabca. Bbca

bcaba aabccacbccb ca ccbcbbbcabba ab bbc Cbcbbab acabba – accacbcca caacabcca acb accaccba ba Ccbbbb, bcabbacccc caacabcca – ba BcabCcb.

- **ABCBCC CCC.** Caacabcca cc bbca bcaba bbcb cbbccaccba cb bbb Ccaacab aacbbb ba Bacbccabaaa Aaacaaaa Ccaaabcaa Ccbcbcb cb 0001. Bbba acb accaccba ab Cbcbbab acabba. Cb 0011 bbca bcaba aacb acccab baa cbccbaaba ba 10%.

- **ABCBBBCA.** Bbca bcaba bbccbaa bc bbb Cbaccab Accaaccaaacbc Ccbcbcb. Cb Ccaaca cb ca acabccbcbba ba Bbbcacabab Ccaaaba (bbb ccba cc Acbbcabccca) aba Bbaccbbbc (bbb ccba cc Ccabca-cb-Acb). Caacabcca cc bbca bcaba acb accaccba ab bbb Caaacc acabb cb Cbaca aba ab bbb AC Acbccbac Acbaacccaccbc acabb cb Ccaabca. Cb 0010 cba aacba cbccbaaba ba 10% aaacbab bbb acbaccca abac aba cbaacbba ab bbb aaab cbabc cb 0011.

- **BCAA CCCCCAA.** Bbbab acb Cbaccab caacabcca bbab baa bbbb acaaccba ccca bbb Ccbacbac AAA acabb ba cba bccccacab acabccbcbcc Ababa-Bcaacba Ccaaaba ca bc 0010. Cb 0010, bcbbabc, bbb Ccbacac cbacbabbbabcab baa abcccba caacabcca bcb cbca bbcccab Ababa-Bcaacba Ccaaaba, bbc aaab cbca a bacc cc bcbac aacba, bcb acac bbcccab aaacc aba aabcaab-acbb cbaccbac acabccbcbcca. Aa a cbaccb cc bbca acaaacbbabbb bbbbbbb bbb aabccacbccbc aba Acabccbcbcc BCAA CCCCCAA aacba cbcc ba 01%. Cb 0011 bbca bcaba'a aacba cbcc ba cbbbc 10% acb bc bbb cacb bbab Ababa-Bcaacba Ccaaaba cbccaba bc acabccbcbb bbca bcaba aba cb baa accacbba ba Ccbacac Abcaccb Ccaaaba.

- **CBACABCCB AAACBBC**. Accacbcca caacabcca cc bbca bcaba acb accaccba ab bbb CBACABCCB AAACBBC acabb cb Cbaca. Cb Ccaaca cb baa accacbba ba cba bccccacab acabccbcbcc – Bbcaccca Ccaaaba ca bc 0011. Caab abac Acca Ccaaaba abcccba bcccacabca Bcccabab caacabcca abacbba cccabcabcba bcbb bbb Cbaccab aabccacbccbc.

- **ABA**. Cb 0000 Abbabcc cbbab Ccaaaba abcccba aabcbacabacb ba bbccbaacb abacbba acaacacba caacabcca accaccba cb Cbcba ab Bcbac Bcccca acabb cbabc ABA bcaba bc bbb Ccaacab aacbbb. Acbcab cccabcabccb aacbca bcbb ACA-abccba aba ababccabca caacccba cba accb bbab accbcb aacba accbbb cb 0011 aba 11[bb] acacb cb bbb cabcba ba cbaccba cc bbb abac.

- **CAACABCCC 0000**. Bbca Cbaccab bcaba abcca 1 acabca cc accacbcca caacabcca cb Ccaaca. Bbca bcaba cbacbabbbba ba 1 acabccbcbcca - «Cbbaabcca», «Aaccbabc», «Cbcca Abcccb», «Abaabcccaa Bbaca», «Bbbcacabab», "Aabbbcbcaaac", "Ccabcacb" aba "Cbacb" ccaaabcba. Bbabba bc abbcacbcba bbb acabccbcbcca bbca bcaba aabaaba bc cbccbaab cba aacba ba 00% aba, bbbcbcccb, bc ccbacccaabb cba aacbbb acacbccba cb 0010. Bbb cacc cb cba aacba cb 0011 cab bb ccbbccbcbba bc bbb cacb bbab cba aacb acabccbcbcca – Aaccbabc, Abaabcccaa Bbaca, Cbbaabcca, Aabbbcbcaaac aba Cbacb baab cbaccba bbbcc acccbaab acccab, bbccb Cbcca Abcccb bcacba 10% cc Cbaccab caacabcca baa bbab cba acccbaab acccab ab bbb acbaccca abac cbabc.

- **ABBBCAC CAACABCC.** Cbbbcaa Ccaaaba baa bbbb accacbcba cba bcaba cb bbb aacbbb ccc accb bbab 1 abaca. Cb acacba cba ccabca ccc aabcba caacabcca ab bbcbb Cbcbbab acabba. Abbbcac Caacabcc baa accb abccba acacbccba cb bbb abaabbb cc bcabbacccc caacabcca bbab babb 01% cb cba aacb abcccbccb.

- **ABBBCAC BAACACCCC.** Caacabcca cc bbca bcaba acb accaccba cb Cbcba cbabc ccabc cc Aaccbabc Ccaaaba. Cb 0011 bbbab caacabcca bbcb acaaccba bc Ccaaca ccca bbc Cbcbbab acabba aba bbbcc aacba cbccbaaba ba 11%.

- **AABCCB-A**. Caacabcca cc bbca bcaba acb acaaccba ba a bca bbccbaacb aba cbbacc ccaaaba Abaaccaccabccacabcca. Bbbab caacabcca acb aaab ab bbcbb Cbcbbab acabba aba acbabbbba ba bcbb accacbcca (01%) aba bcabbacccc accaccba (0%). Acbab ccacabcc aba ccbabccac caaabcccbcba cc Abaaccaccabccacabcca Ccaaaba acccbba Aabccb-A bc accb a accca cc aacbbb cbaabca bcbbcb bbb cccab abac cc cabcabccb.

- **CBC**. CBC Accca, bbb aabccacbccbc cc accacbcca accaccba bababccabba cb bbb ccba cc Abca, aabba caacabcca cbabc bbc bcabaa - Abacbba (acabccbcbcc – «Abcabccca Bbaca») aba Abcbac (acabccbcbcc – «Bacacb»). Cb 0010 bbca bcaba bccb bbb 00[bb] acacb ba abcccba 100,000 abcbccba.

- **CBCCCCC**. Bbabcba caacabcca acb bcb bbb aacb accaccba cc Cbccccc cb Ccaaca, bcbbabc, bbca bcaba baa bbccab cabbbc acaccac cb bbb aacbbb. Accacbcca caacabcca aaab ab bbb ccaaaba'a acabb cb Accaba cbabc Cbccccc bcaba bbcb acaaccba bc bbb aacbbb ba acc Acabccbcbcca – Bbacccaaccb, CCB, Baca, Acb-Acaab, Bbaccbabc aba Bbcaccca. Acca Ccaaaba acac acaaccba bbbab caacabcca, bcb cbabc Cbc bcaba. Cbccccc aacba baab bbbb cbccbaacba ccc bbcbb abaca cb a ccb.
- **BAAC.** Bbca bcaba ca accacbba ba Acacbcaabbbcbacbbabb Ccaaaba. Bcbb accacbcca (abccb 11% cb cba aacb abcccbccb) aba bcabbacccc caacabcca acb accaccba cb Cbcba. Cb 0010 cba aacba accb bbab accbcba. Cb 0011 bbba cbcc ba 10%.

  Acc bbb abbbccbba abcab bcabaa babb abccb 0/0 cc bbb aacbbb ba cbaccba cc bbb acbaccca abac.

Bbccb bb accacab bbb babcb cbcccacba bbb cbaacba acabba aba bbb bcabaa accaccba ba bbba. Bb ccbacabc cb bc bb cbbbcbabcba ccc bcbb aabccacbccbca aba Acabccbcbcca.

TABLE 10. TOP-30 manufacturing plants on the Russian market. Results of 2011, number of sections.

№	Manufacturing plant	Nationality	Brand	Quantity	TOTAL:
1	Abababac Cbbbcbabccbac Bcaab (BABAAA Accca)	Cbcba	Caabba	1 000 000	**1 101 000**
			Abbbcc Ccc	101 000	
			ABC	100 100	
			Acbabcc	000 100	
			AA Bbbcac	001 000	
			Acbbbca	01 100	
			Ccaac Bbbcac	00 000	
			Cccb Cbaca	11 000	
			Cbbbc	101 100	
0	Ccbacbac AA A	Cbaca	Caccacc	0 010 100	**1 010 100**
			Bcaa Cccccaa	1 101 000	
			Aabaca	111 000	
			Aaabbc	111 000	
			Aabcc	111 100	
			Accac	001 100	
			Cbaac	110 000	
			Accccccc	11 000	
			Abacc	0 000	
0	Cc cac	Ccaaca	Cccac	1 010 000	**1 010 000**
1	Bbbacaba Ccbaba Cbacabccac Bcaacba (BABACC Caacabcc)	Cbcba	Bcbbbc	1 111 100	**1 101 100**
			Abbbcc Ccc	110 000	
			Accbac	111 100	
			Ccaac Bbbcac	000 000	
			AA Bbbcac	010 100	
			Bbccccaa	000 100	
			Acabbba	010 100	
			Abbbcac Caacabcc	011 100	
			Caacbacc	111 000	
			Acaacac	111 000	
			Cabbca	100 000	
			Aabccb-A	110 100	
			Bccbbc	10 000	
			Bcbbca	10 000	
			Bbbcacaa	00 000	
			Cbbbc	101 100	
1	Bbbacaba Bcbac Bccca	Cbcba	ABA	1 010 000	**1 110 000**
			Abbbcac Baacacccc	011 100	
			Abbbcc Ccc	101 100	
			Abacb	010 000	
			Acccbbcca	000 000	
			Acabb	110 000	
			AAA	110 100	
			Caaca	01 000	
			Acabcb	01 100	
			Bacaa	10 100	
			Bacab	11 000	
			Accac	00 100	
			Bbcacaab	01 100	
			Acacb	01 000	
			Acabb-Abca	11 000	
			Bbaccbbca	11 000	
			Abbcb	11 100	
			Cbbbc	100 000	
0	Bbbacaba Ccbaccba Cbacabccac (CCBBBB)	Cbcba	Cacbb	1 010 000	**0 111 100**
			Aacabaa	110 100	
			Bcbabac	111 100	
			Ccbbbb	011 100	
			Accac	001 100	
			AB Aabbcaab	101 100	
			Abbbcac Caacabcc	111 100	
			Abcaabcca	110 000	
			Acccaa	10 000	
			Acabcccb	11 100	
			Aabccbc	00 000	
			Bbaccc	11 000	
			Bcbbbc Acbaa	10 100	
			Aaacb	10 000	
			Bbbcacacca	00 100	
			Cbbbc	11 100	

Source: Litvinchuk Marketing Co.

Russian radiator market in 2005-2011. «Litvinchuk Marketing Co.», March 2012

TABLE 10 (CONTINUED 1)

№	Manufacturing plant	Nationality	Brand	Quantity	TOTAL
1	Accbac Ac Cacabccc Cbbcccbc & C	Cbaca	Accbac	0 100 000	**0 100 000**
1	Cccc Ccba BcabCcb Bcbcbccc Aaaacabca Cbacabccac	Cbcba	Bbbcaa	1 100 100	**0 011 100**
			Cacbb	110 100	
			Accc	001 000	
			Bcbbbb	010 100	
			Bcabccb	101 000	
			Acbcaaa	11 000	
			Cbbbc	11 100	
0	Bbbacaba Acabaacba Aacbcbbca (ACBBBCBA Caacabcc)	Cbcba	Ccaac Bbbcac	101 100	**0 011 000**
			Aaca	011 100	
			Bcacbbbca	101 100	
			Aabbb	001 000	
			Acbbbcba	100 100	
			Ccccb	111 100	
			Abbcb	01 000	
			AAA	11 100	
			Bcbbbc	00 100	
			Cacccccbca	11 100	
			Bcabcc Cccccaa	10 100	
			Aacabb	11 000	
			Aacaa	11 000	
			Abbcbc	11 000	
			Cbbbc	11 000	
10	Bbbacaba Bcbaabcac Cbacabca	Cbcba	Bcccabac	011 100	**0 100 100**
			Abbbcac Caacabcc	011 000	
			Bcbbbc	001 000	
			Ccaabac	000 100	
			Accab	000 100	
			Baac	10 000	
			Cbbbc	10 000	
11	Acbababa Aababb Caacabcc (ACBBA BBABBC)	Cbcba	Aabccb-A	110 100	**0 010 000**
			CCB	000 000	
			Caaca	010 000	
			Abcaacca	111 100	
			Abbcc	100 100	
			ABB	101 000	
			Acbba Bbabbc	110 000	
			ACC	00 000	
			Bcbbbc	11 100	
			BCC Bccacba	11 000	
			Ccacccb	01 100	
			AAB	10 100	
			Ababcb	10 100	
			Ccaabac	10 000	
			Acccbcc	11 000	
			Aaccc	10 000	
			Cbbbc	010 100	
10	Bcbabc Bcbaabcba Bcbbcc Cbacabccac	Cbcba	Caaca	1 000 000	**0 110 100**
			Bcbbcc	100 000	
			ABB	001 000	
			Bcbbbc Acbaa	100 100	
			Bcbbbc	11 000	
			Aaccc	01 000	
			Baccccaa	11 000	
			Bbabbc	11 000	
			Bccccacab Acc	10 100	
			Cbbbc	01 000	
10	Bbbacaba Acabaa Aacbcbbca & Bcbcbcccac Aabccacbcccba (BCBABCCCC)	Cbcba	Caaca	110 100	**0 110 100**
			Acbcab	110 000	
			Accac	010 000	
			BAC	001 000	
			Abbbcac Baacacccc	110 000	
			Cacb/Abbabcbba	100 100	
			Ccaabac	00 100	
			Bacaa	10 100	
			Baca Bcab	10 100	
			Ccacccb	11 100	
			Aaabbc (Cbcba)	11 000	
			Cbbbc	101 100	
11	Acca Accca (Bcabacb) Bbabcba Caacabcca	Cbcba	Acca	0 100 100	**0 100 100**
11	AC Acbccbac Acbaacccaccbc ACC	Ccaabca	Abcbbbca	1 111 000	**1 100 000**
			Abcccac	11 100	

Source: Litvinchuk Marketing Co.

BABCB 10 (CCBBCBCBA 0)

№	Manufacturing plant	Nationality	Brand	Quantity	TOTAL
10	Bbbacaba Baab Cbacabca	Cbcba	Caaca	101 100	1 111 000
			Aabccb-A	011 000	
			Cbacb	000 000	
			Bcccb	100 000	
			Abcba	01 000	
			Acccbcc	11 000	
			Accac	11 000	
			Cbbbc	10 000	
11	Caacabccc 0000 AAA	Cbaca	Caacabccc 0000	1 000 100	1 000 000
			Bcccca	001 000	
			Ccaac Bbbcac	100 000	
11	Bcbabc Bcbaaaba Bbabcba & Abbbcba Aabccacbccb	Cbcba	Bcbbbc	1 011 100	1 001 100
			Caaca	110 000	
			Bbacaaa	11 100	
			Accab	01 000	
			Aacabb	11 100	
			Ccccca	10 100	
			Abaaccc	1 100	
			Cbbbc	10 000	
10	Cbacabccb Aaacbbc AAA	Cbaca	Cbacabccb Aaacbbc	1 110 000	1 110 100
			Aaaa Bccbaabcb	10 000	
00	Bbbacaba Bbab Caacabcca Aabccacbcccba	Cbcba	Bbaccbbca	100 100	1 110 000
			Baccc	011 100	
			Bbab Caacabcc	001 100	
			Bbaccb	10 000	
			Accac	10 000	
			Cbbbc	100	
01	Cbcccccc Accaba AA BCC	Accaba	Cbcccccc	100 100	1 000 000
			CBC	011 000	
			Cbbccbb	01 000	
00	CBC Accca	Ccaaca	CBC	100 000	100 000
00	Ababacba Babbac Caacabcc	Cbcba	Baac	010 000	101 100
			Babbac	00 000	
			Accbbc	11 100	
			Aaca	11 100	
			Cbbbc	00 000	
01	Acabaac Cbbbababcb Caacabcc	Cbcba	Ccaac Bbbcac	111 000	110 000
			Aabc	100 100	
			Acaacabccb	10 000	
			Cbbbc	111 100	
01	Acabccbac Acacba Aaabbaa	Cbcba	AAB	011 100	101 000
			Caacbc	00 000	
			Cbbbc	10 000	
00	Cacac AAA	Cbaca	Cacac	010 000	010 000
01	Acbababa Acbbcac Aacbcbb Bcbcbccc	Cbcba	Ccccb	100 100	110 000
			Abbbcc Ccc	101 000	
			Bcaab	111 100	
			Accca	100 100	
			Abbcb	01 000	
			BCC Bccacba	11 100	
			Cbbbc	10 000	
01	Bbbacaba Bcbaaaba Caacabcc Accacccba	Cbcba	Bacca	110 100	100 000
			Bacab	10 000	
			Ccaba	10 100	
			Aaabbc	10 100	
			Cbbbc	01 000	
00	Acca Accca AAA	Cbaca	Acca	111 000	111 000
00	Caacba	Bccba	Caacba	101 000	101 000
	Other plants				1 110 000
	TOTAL:				11 100 000

Ba cbaccba cc 0011 BCA-00 acabba acaacacba caacabcca bc bbb Ccaacab aacbbb cbcccab 10 Cbcbbab, 0 Cbaccab, 0 Ccaacab, 1 Ccaabcab, 1 Accaba aba 1 Bccbab acabba.

TABLE 11. Russian aluminium/bimetallic radiator market structure by brands, EUR

№	Brand	2005	2006	2007	2008	2009	2010	2011
1	Aleator				111 000	0 000 000	1 100 000	1 100 000
2	Ardenza							0 101 100
3	ASB			000 100	1 110 100	0 100 100	1 100 100	1 011 100
4	Asia						010 100	1 000 000
5	Astek						1 110 000	0 010 100
6	Astor						0 001 100	1 010 000
7	ATM						1 010 100	10 111 000
8	Bilit							0 100 000
9	Brixis					001 000	001 000	0 010 000
10	Calidor	00 111 000	11 110 100	11 100 000	10 000 100	11 110 100	00 000 000	00 110 000
11	Elsotherm							0 111 000
12	Epico						0 110 000	0 000 000
13	Eurostar				100 000	1 100 000	0 111 100	1 001 100
14	Faral	0 010 000	0 101 100	1 110 000	1 110 100	0 010 000	0 000 100	1 001 000
15	Ferroli	1 001 100	0 010 000	1 100 000	0 100 000	0 111 100	1 011 100	1 001 100
16	FIT						0 111 000	0 101 000
17	General Hydraulic	000 000	1 111 000	1 100 100	1 011 100	0 101 000	1 111 100	0 100 100
18	General Radiator	011 100	1 111 100	10 110 000	00 001 000	1 100 000	10 011 000	10 010 000
19	Global	10 000 100	11 010 100	00 000 000	11 100 100	10 110 000	00 111 000	11 011 000
20	Gordi				100 000	1 011 000	1 011 000	1 110 000
21	Hafis							0 010 100
22	Hotstar							0 010 000
23	Hydrosta		011 100	1 110 100	1 111 000	1 101 100	1 010 100	0 111 100
24	Industrie Pasotti	11 001 000	11 100 000	11 100 000	11 101 000	10 001 000	01 110 100	00 100 100
25	Kinhil		0 011 100	1 111 100	1 101 000	1 011 100	1 111 000	1 110 100
26	Konner	00 100	1 110 100	1 011 000	11 010 000	01 101 100	00 101 000	00 101 100
27	Lavita			111 100	1 010 000	1 110 000	1 000 100	0 010 000
28	Lontek				001 000	001 000	1 011 000	0 100 000
29	Master (Fondital)						1 001 100	1 111 100
30	Mectherm	11 001 000	11 101 100	10 110 100	11 010 000	10 101 000	11 011 100	11 011 000
31	MG Thermo			100 100	10 000	0 000 000	0 010 000	1 110 000
32	Monlan							1 100 100
33	Nami			1 101 000	0 010 100	0 100 000	0 101 000	1 001 100
34	Neoclima							0 111 100
35	Nova Florida	00 111 100	01 001 000	10 011 000	01 100 000	11 111 100	01 111 100	00 100 000
36	Oasis			1 000 000	10 110 000	11 110 000	00 000 100	00 011 100
37	Ogint					101 000	1 011 100	11 000 100
38	Pride							0 110 000
39	Radena			110 000	11 111 100	10 111 000	11 101 000	11 000 000
40	Radiatori 2000	1 011 100	10 101 100	11 011 000	1 100 000	11 110 000	01 110 100	11 110 100
41	Rifar	10 101 100	11 100 000	01 001 100	10 011 100	00 011 100	10 101 100	01 001 100
42	Roca/Baxi	1 100 100	1 001 000	11 010 000	11 111 100	1 000 000	0 100 100	0 100 000
43	Romstal				1 010 000	1 001 100	0 011 100	0 011 000
44	Royal Thermo	1 000 000	0 010 100	11 010 100	00 110 000	11 000 000	10 101 000	00 000 000
45	RTC					0 101 000	1 110 000	1 001 100
46	Sahara	0 111 000	1 001 100	0 000 100	1 110 000	10 000 000	0 010 000	0 101 100
47	Saturn-S							0 101 100
48	Shark							0 100 100
49	Sira	01 011 100	11 001 100	10 011 100	01 100 000	01 011 100	11 011 100	01 100 000
50	Solar	1 111 100	1 110 000	10 010 000	10 100 000	10 000 100	10 101 000	1 100 000
51	STI			1 001 000	0 010 000	0 101 100	0 000 100	0 011 000
52	Tenrad						1 010 100	0 001 100	00 100 000
53	Teploterm						0 110 000	1 000 000
54	Termica Comfortline			0 100 000	0 100 000	1 000 100	0 010 000	0 100 000
55	TermoSmart				1 101 000	1 011 100	0 001 000	0 101 100
56	Varmega						001 100	1 100 000
57	Vektor Lux			110 000	111 000	1 111 100	1 100 000	10 100 000

Source: Litvinchuk Marketing

TABLE 11 (CONTINUED 1).

№	Brand	2005	2006	2007	2008	2009	2010	2011
58	Allrad							110 100
59	Allur						010 000	1 000 000
60	Alurad	0 100 100	0 000 000	101 000	001 000	010 000	000 100	110 100
61	Ankor						110 000	1 001 000
62	Aquaprom					101 000	1 101 000	1 111 000
63	Armatura	111 000	011 000			101 100	1 010 100	1 001 100
64	Best Radiator			110 000	011 000	100 100	1 111 100	1 111 100
65	Bodsh						0 111 100	101 100
66	Breeze				00 000	1 001 000	0 011 100	1 011 000
67	BREM				1 101 000	0 100 100	1 001 100	1 100 000
68	California				100 100	010 100	111 100	100 100
69	Comfort				011 000	01 000	100 100	1 001 100
70	Crystal				111 000	000 000	101 000	101 100
71	Decoral	110 000	1 111 100			110 100	100 100	011 000
72	Energy						001 100	011 000
73	ERL Holding						1 111 100	1 010 100
74	FER							0 100 100
75	Fratelli					000 100	0 011 000	0 111 100
76	Gabi	100 100	10 100	1 000 100	1 000 100	1 000 000	1 111 000	1 110 000
77	Gabriel					1 101 100	010 100	101 000
78	Garanterm							0 111 100
79	Germanium							1 000 000
80	Giperion		001 000		1 111 100	100 100	1 110 100	100 100
81	Grant						1 001 100	1 101 000
82	Greening							1 001 100
83	Iglz/Mendeleev							001 100
84	JIF						1 110 000	000 000
85	Kalde							100 100
86	Ledeme					101 000	111 000	1 000 000
87	Luxon							0 111 000
88	Millennium							1 011 100
89	Ondal						111 000	1 011 100
90	Otgon					000 000	1 011 100	1 111 100
91	Polo				101 000	1 000 000	0 001 000	1 100 000
92	PSP-500					101 100	0 101 000	110 000
93	Raditall				1 001 000	1 110 000	0 100 100	1 110 000
94	Ragall	10 011 000	10 111 000	11 000 100	11 000 100	1 100 100	0 110 000	1 010 100
95	Rawela				110 100	101 100	101 000	1 101 000
96	SanTechProm			0 001 000	1 010 100	1 001 000	0 110 000	0 000 100
97	Scola			101 100	1 100 000	10 101 100	0 111 100	110 100
98	Seagull						1 001 100	1 011 100
99	Sialko	1 000 100	1 111 100	1 011 000	1 100 000	001 000	1 010 000	1 000 000
100	Smalt							1 010 000
101	SMS							1 000 000
102	ST Santrade						100 100	1 101 000
103	Stern						101 100	1 101 000
104	STK							1 000 100
105	STT				000 100	1 110 000	1 011 000	1 101 100
106	Sunny Heater							110 000
107	Sunterm				011 100	010 100	010 000	110 000
108	Termal	010 100	1 011 100	0 011 100	1 001 000	1 111 000	0 100 000	0 111 100
109	Tianrun							000 000
110	Vitaterm			111 100	1 000 100	1 000 000	110 100	101 000
111	Vivaldo							1 111 000
112	Warma							100 100
113	WDF				010 000	110 000	0 101 000	1 100 100
114	Winter Dream							0 001 100

Source: Litvinchuk Marketing Co.

Russian radiator market in 2005-2011. «Litvinchuk Marketing Co.», March 2012

TABLE 11 (CONTINUED 2).

№	Brand	2005	2006	2007	2008	2009	2010	2011
115	Alcobro							110 000
116	Alis				001 100	001 000	101 000	000 000
117	Alukal			011 100	1 110 000	011 100	011 000	111 100
118	Ampir					1 101 000	111 000	00 000
119	Aquarius				111 100	10 000	101 000	011 100
120	Bianco Florida			101 000	101 100	010 000	101 100	010 000
121	Delta							100 000
122	Elite				010 100	000 100	010 100	110 000
123	Etalon							100 000
124	FlyHigh					1 101 100	010 100	010 000
125	Galant				000 000	001 100	001 100	111 000
126	Gama Ellegance	00 000		000 000	111 000	11 100	00 000	01 100
127	Global Metal					010 100	001 100	111 100
128	Gradiatore					100 100	010 100	110 000
129	Grant-Aqua						011 000	100 100
130	Invena						100 100	110 100
131	Klibwi							101 000
132	Lexline							100 000
133	Lion Italy				010 100	100 100	011 000	101 100
134	Mars				100 100	101 000	101 100	000 100
135	Master (China)					010 000	010 100	100 100
136	Mirado							100 100
137	Onda Design					100 000	101 100	011 100
138	Onnline							000 100
139	Parma					1 111 000	11 110 000	111 000
140	Pioner					101 100	100 100	111 100
141	PROFMontazh							000 100
142	Rolica				101 000	10 100	101 000	111 100
143	Sapun							011 100
144	Scirocco	0 001 000	0 101 000	1 011 100	1 010 100	0 100 000	0 101 100	101 100
145	Sesir							00 100
146	Sheler				110 100	011 100	100 000	110 100
147	Sibio						111 000	100 100
148	Soyuz							000 100
149	Sunrays							101 000
150	Teplada							110 100
151	Teplox							111 100
152	Termoteck				000 100	001 000	011 100	010 000
153	Termway				011 000	111 000	101 000	111 000
154	Thermoplus				101 100	1 000 000	001 000	001 000
155	Veaton							001 000
156	Vostok							101 100
	Other:	1 110 100	1 000 100	11 000 100	01 001 000	11 011 100	01 110 100	10 001 000
	Total:	**010 010 000**	**000 100 100**	**101 011 100**	**111 110 000**	**110 110 000**	**001 111 000**	**110 011 000**

Source: Litvinchuk Marketing Co.

3.1.6. IMPORTED RADIATOR STRUCTURE BY NUMBER OF SECTIONS FOR SOME BRANDS IN 2011

TABLE 12.

№	Brand	Number of sections in imported radiators													Σ radiators	Σ sections	Average number of sections in a radiator
		3	4	5	6	7	8	9	10	11	12	13	14	15			
1	ASB			00	10 010		11 100		11 010		1 010				**11 100**	**011 000**	0,1
2	Asia		1 000		10 110		10 000		01 100		10 000				**10 110**	**011 100**	1,1
3	ATM				01 100		10 110		11 010		11 000				**111 000**	**1 010 110**	1,1
4	Calidor		1 100	10 110	00 110	1 110	10 010	0 010	00 100	1 110	00 110	100	11 010		**010 000**	**0 010 100**	0,1
5	Eurostar				1 010		10 010		00 100		1 010				**10 010**	**011 100**	0,1
6	Ferroli		0 010		1 000		11 000		11 100		0 010				**11 000**	**111 100**	0,0
7	General Hydraulic				00 010		00 010		10 110		00 100		110		**100 100**	**1 001 010**	0,1
8	General Radiator		11 100	1 110	00 100	0 010	01 110	1 100	00 100	100	10 100		100		**100 100**	**1 100 010**	1,1
9	Global	10	11 000	010	01 000	1 000	10 000	100	111 100	110	11 000	100	10 100		**100 110**	**0 111 000**	0,1
10	Industrie Pasotti		0 000	1 000	00 100	0 110	01 100	1 100	01 100	010	01 110	110			**101 010**	**1 110 000**	1,1
11	Konner		11 100		10 010		100 110		110 100		00 010				**100 100**	**0 000 100**	1,0
12	Mectherm		0 010		00 000		01 100		110 110		11 110				**111 010**	**1 111 000**	0,0
13	MG Thermo		0 100		10 110		00 000		00 100		11 010				**10 110**	**111 100**	1,0
14	Nami		11 010		10 000		10 000		01 100		10 000				**10 000**	**110 100**	1,1
15	Nova Florida		10 100	0 010	01 100	0 110	00 100	1 100	11 110	100	01 010	010	0 010		**000 000**	**1 101 000**	1,0
16	Oasis		00 010		11 000		100 000		111 110		01 110				**111 100**	**0 010 100**	1,1
17	Ogint		00 010	00 100	00 100	00 000	01 100	11 110	11 010		00 010				**010 000**	**1 111 010**	1,1
18	Radena		01 100	00 010	10 110	00 000	101 100	11 110	000 110	1 100	10 010				**100 110**	**1 001 010**	1,0
19	Radiatori 2000		11 100	110	01 010	010	01 110		10 110		11 100				**111 000**	**1 011 100**	1,1
20	Royal Thermo		00 000	1 110	01 100	10 100	11 010	10 000	11 010		01 000		0 010		**001 100**	**1 000 110**	1,1
21	Saturn-S		1 000		10 100		10 100		01 000		0 110				**111 110**	**1 011 100**	1,0
22	Sira		00 100	11 110	01 000	00 110	10 100	0 100	00 100	100	01 110		1 000	0 110	**011 110**	**0 011 000**	1,0
23	STI		11 010	1 100	10 000	0 110	11 100	1 100	11 010	1 000	0 000				**00 000**	**100 010**	1,0
24	Tenrad		11 010	1 100	10 000	1 110	11 000		10 100		01 000				**001 000**	**1 010 110**	1,0
25	Vektor Lux		10 110		00 000		11 010		01 110		01 110				**001 110**	**1 101 110**	1,1

Source: Litvinchuk Marketing Co.

TABLE 12 (CONTINUED).

№	Brand	Number of sections in imported radiators													Σ radiators	Σ sections	Average number of sections in a radiator
		3	4	5	6	7	8	9	10	11	12	13	14	15			
26	Aleator		1 010		11 110		11 010		00 100		11 010				**10 100**	**000 000**	1,0
27	Astek		1 000		1 110		11 110		11 000		0 100				**10 010**	**001 010**	1,1
28	Astor		0 100	1 010	1 010	1 100	0 010	110	11 000	10	1 010		100		**11 000**	**111 000**	1,1
29	Elsotherm		0 000		10 010		10 000		00 010		0 110				**11 110**	**101 100**	1,0
30	Epico				0 110		0 110		01 000		1 110				**00 000**	**011 000**	0,1
31	Faral		0 000	1 010	10 000	0 010	11 110	110	01 010		0 010		0 000		**10 010**	**010 000**	1,0
32	FIT		0 000		10 000		11 100		11 010		1 100				**10 100**	**000 000**	1,0
33	Fratelli		100	0 100	0 100	0 110	0 000	110	0 110	010	1 010		1 010		**00 100**	**011 010**	1,1
34	Gordi		1 110		11 110		11 010		00 010		10 100				**00 000**	**101 000**	1,1
35	Hafis				1 100		0 000		00 110						**10 100**	**110 100**	0,0
36	Hotstar				0 110		10 000		01 110		1 010				**11 010**	**111 100**	0,0
37	Hydrosta		1 110		1 110		11 000		10 010		1 010				**10 000**	**010 100**	1,0
38	Kinhil		0 110	10	0 010	00	1 010	00	01 110	10	0 110				**10 100**	**101 000**	0,0
39	Lavita		1 000	1 010	0 010	0 010	10 110		10 110		1 110		0 000		**00 100**	**101 010**	1,0
40	Lontek		0 000	110	1 110	000	1 000		10 010		1 100				**11 000**	**011 000**	1,0
41	Master		1 010	110	1 010	110	1 100	110	00 000		1 010		100		**11 110**	**111 110**	0,1
42	Monlan		0 000		10 110		11 110		01 010		0 100				**10 000**	**110 000**	1,0
43	Neoclima				10 010		10 100		11 100		1 010				**10 110**	**100 000**	1,0
44	Pride		1 110		1 100		10 010		10 100		1 110				**10 110**	**011 100**	1,0
45	Romstal				1 000		10 010		11 110		1 000		0 000		**00 010**	**000 110**	0,0
46	Sahara		0 010	1 000	11 110	1 100	11 110	110	00 010	100	1 100		110		**00 000**	**111 110**	1,1
47	Shark				0 000		0 100		01 110		1 100				**11 110**	**010 000**	0,0
48	Teploterm				11 010		11 000		01 000		11 000				**01 110**	**000 000**	0,0
49	Termica Comfortline		1 100		0 110		1 010		10 010		0 100				**00 010**	**001 000**	1,0
50	Varmega		0 110		0 000		11 010		10 010		11 010				**10 110**	**110 000**	1,1
	Other	1 110	10 110	11 000	011 000	11 100	000 100	10 010	110 110	1 110	111 100	1 100	0 000	100	**1 011 100**	**11 111 110**	1,1
	TOTAL:	**1 100**	**111 111**	**110 111**	**1 000 010**	**111 001**	**1 011 001**	**11 010**	**0 000 100**	**10 111**	**011 010**	**0 000**	**01 001**	**0 111**	**1 111 110**	**01 000 000**	1,1

Source: Litvinchuk Marketing Co.

Russian radiator market in 2005-2011. «Litvinchuk Marketing Co.», March 2012

3.1.7. ALUMINIUM / BIMETALLIC RADIATOR DISTRIBUTION BY BRANDS IN 2011

TABLE 13.

№	Brand	Aluminium	Bimetallic	TOTAL:
1	Aleator	111 100	11 000	**000 100**
2	Aquaprom	110 100	01 100	**111 100**
3	Ardenza	000 100	101 100	**010 100**
4	ASB	111 100	110 000	**011 100**
5	Asia	100 000	110 000	**011 100**
6	Astek	000 000	01 000	**001 000**
7	Astor	111 100		**111 100**
8	ATM	000 100	010 100	**1 010 000**
9	Best Radiator	111 100	10 000	**001 100**
10	Bilit	100 000	010 000	**100 000**
11	Breeze		010 100	**010 100**
12	Brixis	001 000	01 100	**011 100**
13	Calidor	0 010 100		**0 010 100**
14	Elsotherm	010 100	00 100	**101 100**
15	Epico	011 100	01 000	**011 100**
16	Eurostar	110 000	11 100	**011 100**
17	Faral	010 000		**010 000**
18	FER	011 000		**011 000**
19	Ferroli	111 000		**111 000**
20	FIT	011 100	11 000	**000 000**
21	Fratelli	011 100		**011 100**
22	Garanterm	000 100		**000 100**
23	General Hydraulic	110 000	010 000	**1 001 000**
24	General Radiator	011 000	100 000	**1 100 000**
25	Global	0 001 100	100 000	**0 111 100**
26	Gordi	000 000	110 100	**101 100**
27	Hafis	010 100	00 000	**110 100**
28	Hotstar	001 100	100 100	**111 100**
29	Hydrosta	001 000	11 000	**010 000**
30	Industrie Pasotti	1 100 000	10 100	**1 110 000**
31	Kinhil	100 000		**100 000**
32	Konner	0 001 000	1 001 100	**0 000 100**
33	Lavita	001 000	000 000	**101 000**
34	Lontek	001 000	100 000	**011 100**
35	Luxon	100 000	111 100	**011 000**
36	Master (Fondital)	111 100		**111 100**
37	Mectherm	1 111 000		**1 111 000**
38	MG Thermo	111 100		**111 100**
39	Millennium	101 100	01 100	**001 000**
40	Monlan	111 100	101 000	**110 000**
41	Nami	111 000	001 000	**110 000**
42	Neoclima	011 000	100 000	**100 100**
43	Nova Florida	1 101 000		**1 101 000**
44	Oasis	0 111 000	111 100	**0 010 100**
45	Ogint	1 010 000	110 100	**1 111 000**
46	Otgon	111 100	11 100	**000 000**
47	Polo	001 000		**001 000**
48	Pride	000 000	01 000	**011 000**
49	Radena	1 000 100	1 011 000	**1 000 000**
50	Radiatori 2000	011 000	000 000	**1 011 100**
51	Raditall		111 000	**111 000**
52	Rawela	111 100	01 000	**100 000**
53	Rifar	100 000	1 110 000	**1 010 000**
54	Roca/Baxi	010 000		**010 000**
55	Romstal	001 100	00 100	**000 100**
56	Royal Thermo	1 101 000	111 000	**1 000 100**
57	RTC	100 000		**100 000**
58	Sahara	111 000		**111 000**
59	SanTechProm	100 000	100 000	**000 000**
60	Saturn-S	1 010 100	01 000	**1 011 100**
61	Shark	010 000	00 100	**010 000**
62	Sira	1 011 000	011 000	**0 011 000**
63	Smalt	11 000	111 000	**001 000**
64	SMS	110 100	00 000	**100 000**
65	Solar	001 100		**001 100**
66	ST Santrade	111 100	10 000	**101 100**
67	STI	110 000	000 100	**100 100**
68	STT	111 000	01 000	**001 000**
69	Tenrad	1 100 100	101 000	**1 010 100**
70	Teploterm	011 100	001 100	**001 000**
71	Termal	010 000		**010 000**
72	Termica Comfortline	110 000	110 000	**001 100**
73	TermoSmart	101 000	11 100	**010 000**
74	Varmega	000 000	000 100	**110 100**
75	Vektor Lux	1 101 000		**1 101 000**
76	WDF	101 000	10 000	**001 000**
77	Winter Dream	001 100	00 100	**000 100**

TABLE 13 (CONTINUED).

№	Brand	Aluminium	Bimetallic	TOTAL:
78	Alcobro	01 000	00 100	**00 100**
79	Alis	10 100		**10 100**
80	Allrad	10 000	0 000	**10 000**
81	Allur	110 000		**110 000**
82	Alukal	11 100		**11 100**
83	Alurad		01 000	**01 000**
84	Ankor	100 100		**100 100**
85	Aquarius	01 100	10 100	**11 100**
86	Armatura	110 000		**110 000**
87	Bianco Florida	01 000	11 000	**10 100**
88	Bodsh	111 100		**111 100**
89	BREM	10 000	110 100	**100 000**
90	California	00 000	00 000	**11 100**
91	Comfort	101 100	10 000	**110 100**
92	Crystal	10 000		**10 000**
93	Decoral	11 100		**11 100**
94	Delta	01 000		**01 000**
95	Elite	11 100		**11 100**
96	Energy	00 000	00 000	**10 000**
97	ERL Holding	111 000	00 100	**101 100**
98	Etalon	11 100	11 000	**10 000**
99	FlyHigh	01 000		**01 000**
100	Gabi	100 100		**100 100**
101	Gabriel	00 000		**00 000**
102	Galant	01 000	01 100	**11 100**
103	Germanium	10 000	00 100	**110 000**
104	Giperion	10 100	10 100	**11 100**
105	Global Metal	11 100	0 000	**10 100**
106	Grant	110 000	10 000	**110 000**
107	Grant-Aqua	11 000		**11 000**
108	Greening	101 000	00 100	**100 100**
109	Iglz/Mendeleev	11 000	101 000	**100 100**
110	Invena	00 100		**00 100**
111	JIF	00 000		**00 000**
112	Kalde	10 100	10 000	**100 000**
113	Klibwi	10 100	10 100	**10 000**
114	Ledeme	111 000		**111 000**
115	Lexline	00 000	11 100	**01 000**
116	Lion Italy	11 000		**11 000**
117	Mars		11 100	**11 100**
118	Mirado	00 000		**00 000**
119	Onda Design		10 000	**10 000**
120	Ondal	110 000		**110 000**
121	Onnline	01 000		**01 000**
122	Parma	11 000		**11 000**
123	Pioner		11 100	**11 100**
124	PROFMontazh	01 000	00 000	**00 000**
125	PSP-500	11 000	10 000	**11 100**
126	Ragall	110 100		**110 100**
127	Sapun	10 000		**10 000**
128	Scirocco	11 000		**11 000**
129	Scola	10 000	00 100	**100 100**
130	Seagull	01 100	11 000	**101 100**
131	Sheler	11 000		**11 000**
132	Sialko	110 000		**110 000**
133	Sibio	10 100	11 000	**00 100**
134	Soyuz		01 000	**01 000**
135	Stern	110 000	01 100	**110 000**
136	STK	100 000	11 000	**101 000**
137	Sunny Heater	110 000		**110 000**
138	Sunrays	01 000	01 000	**11 000**
139	Sunterm	01 100		**01 100**
140	Teplada	11 100		**11 100**
141	Teplox	01 000	00 000	**11 000**
142	Termoteck	00 100		**00 100**
143	Termway	11 100		**11 100**
144	Thermoplus	00 100		**00 100**
145	Tianrun	11 000	10 100	**101 000**
146	Veaton	10 000	1 100	**10 100**
147	Vitaterm		10 000	**10 000**
148	Vivaldo	101 100	10 100	**111 000**
149	Vostok	01 100		**01 100**
150	Warma	10 100	10 100	**11 000**
	Other	1 011 000	010 000	**1 010 000**
	TOTAL:	**10 011 100**	**10 111 000**	**11 100 000**

Source: Litvinchuk Marketing Co.

3.1.8. LEADING DISTRIBUTORS

TABLE 14. Leading distributors of aluminium and bimetallic radiators in 2011, number of sections.

№	Distributor	Brand	Sections by brands	Total:
1	Alterplast	Caabba	1 000 000	1 101 000
		Bacaa	11 000	
2	Alyans	Bbccccaa	100 100	100 100
3	Baltiiskaya Gazovaya Companiya	Abbbcc Ccc	1 101 000	0 101 100
		AA Bbbcac	111 100	
4	Bologovsky Armaturny Zavod	Bbaccbbca	001 000	001 000
5	Domovoi	Ccabbccc	011 100	101 100
		Acca	100 000	
6	Duim	Cacac	011 000	100 000
		Cbacabccb Aaacbbc	000 000	
		CBC	011 000	
		Accbac	00 100	
7	Elf	ABC	100 100	101 000
		Acbbbca	01 100	
8	Energosbyt	Abcbbbca	1 101 100	0 101 100
		Bcbbcc	101 000	
		Bcacbbbca	101 100	
		Acca	11 100	
		Caacabccc 0000	00 100	
9	Enika Trading House	Accac	101 100	101 100
10	Evrasia	Aaca	011 100	100 100
		Abcaabcca	110 000	
11	Fondital Service	Caccacc	1 101 100	1 011 100
		Bcaa Cccccaa	1 001 100	
		Aaabbc	111 000	
		Aabaca	110 100	
		Aabcc	001 100	
		Cbaac	100 000	
		Accccccc	11 000	
12	Forte Trading House	Caaca	0 010 100	1 100 100
		Acbcab	110 000	
13	Goluboi Okean Polimer	Aacabaa	110 100	110 100
14	Interma	Abbbcac Caacabcc	1 100 000	1 100 000
15	Jiel	Acca	1 001 000	1 001 000
16	Leroy Merlin	Caacabccc 0000	010 000	000 100
		CCB	010 000	
17	Maxlevel	Abbbcac Baacacccc	1 001 000	1 110 000
		Caacabccc 0000	11 000	
18	MetaFlex	Caacba	101 000	101 000
19	MosoblsantechMontazh	Baac	110 000	110 100
		Babbac	10 000	
20	Rifar	Cccac	1 010 000	1 010 000
21	RTC Group	CBC	100 000	100 000
22	Rusclimat	Ccaac Bbbcac	1 000 100	1 000 100
23	Santechcomplect	Cacbb	1 111 100	0 010 100
		Acca	1 011 000	
24	Santechimport	Acbabcc	000 100	000 100
25	Shestoi Okean	ABA	1 010 000	1 010 000
26	Stavropolstroioptorg	Aabccb-A	1 011 100	1 011 100
27	Taipit	Bcbbbc	0 101 100	1 001 000
		Accab	010 100	
		Acabbba	010 000	
28	Tatselgazcomlekt	Bcbabac	111 100	111 100
29	Tenrad	Bbbcaa	1 010 100	1 010 100
30	Teploimport	Cbccccc	001 000	110 000
		Caaacc	110 100	
		Acca	00 000	
		Acbbcac Bcccbc	1 100	
		Caccacc	0 000	
31	Teplotsel	Bcccabac	011 100	110 100
		Bacc	100 100	
		Cbcccccc	00 000	
		Acca	01 100	
		Abcbbbca	01 100	
		Acccaa	10 100	
32	Terem	Accbac	0 101 000	0 101 000
33	Termoros	Cbacabccb Aaacbbc	1 010 000	1 001 100
		Cbcccccc	11 000	
34	Yunban	Bacca	110 100	101 100
		Bcaab	111 100	

Source: Litvinchuk Marketing Co.

TABLE 14 (CONTINUED 1). Leading distributors of aluminium and bimetallic radiators in 2011, sections.

№	Distributor	Brand	Sections by brands	Total:
35	Altair	Abacb	010 000	010 000
36	Ankor	Abbcc	100 100	100 100
37	Aquatoria Tepla	Bbcacca Ccacccbb	001 100	001 000
		Caacabccc 0000	00 100	
38	Astek	Aabbb	001 000	001 000
39	Bautsentr (Kaliningrad)	Bbacaaa	11 100	100 000
		Caaac	01 000	
		Cbabba	1 100	
		Acaabcca	0 100	
		Acacb	0 000	
40	BREM TRADING HOUSE	BCBA	100 000	100 000
41	Build	Acbbbcba	100 100	000 100
		Bcbbbc	11 000	
		Acaabcca	00 000	
		Acca	10 000	
42	CON	Cbcccccc	010 100	010 100
43	DAC	Acacbc	110 000	110 000
44	Don-Plast	Cbcccccc	10 000	101 000
		Bacab	10 000	
45	Egoplast	Accac	001 100	001 100
46	Evroopt	Bcbbbb	100 000	011 100
		Accc	10 000	
47	Gelion	Abbcb	110 000	110 000
48	Golyatkin IP	Cacb/Abbabcbba	100 100	100 100
49	Imperiya Tepla	Baccc	011 100	011 100
50	Impuls	Caacbacc	111 000	111 000
51	Kompaniya SMS	AAA	100 000	100 000
52	KTBF-Group	Caccacc	01 100	000 000
		Aabaca	01 100	
		Acabcb	01 100	
		Acacb	01 000	
53	Ledeme	Cbabab	111 000	111 000
54	Luxon Trading House	Cccccb	011 000	011 000
55	Maestro	Ccca	101 100	111 100
		Cbaa Abacab	10 000	
56	Megapolis (Kaliningrad)	Bcbbbc	011 100	011 100
		Bcaa Ccccccaa	01 000	
		Accab	00 100	
57	Metallplast	Bbab Caacabcc	111 000	010 000
		Bbaccb	10 000	
58	MMZ	Bbcaac	010 000	010 000
59	Onninen	Cacac	011 000	000 000
		Cbbccbb	01 000	
60	OptPromTorg	Abcaacca	111 100	111 100
61	Otgon	Cbacb	000 000	001 100
		Caacabccc 0000	00 100	
62	Proconsim	Abaaccc	101 100	101 100
63	Rigelsib	Caacabccc 0000	011 100	000 000
		Aaccc	11 100	
64	Romstal	Ccaabac	000 100	011 000
		Abcccac Ccaac	11 100	
65	Rost Trading House	Aabc	100 100	100 100
66	Ryazansky Radiozavod	Bcccb	100 000	100 000
67	SanTechProm	AabBbcbAcca	000 000	000 000
68	Santechsnab	Caccacc	011 000	101 000
		Acaabcca	00 000	
69	Santechtorg	ABB	001 000	001 000
70	Santechural Trading House	Bcbbbc Acbaa	000 100	000 100
71	SanTrade	AB Aabbcaab	101 100	101 100
72	SibirEnergoTsentr	Baaccaba	010 000	010 000
73	Smalt	Aaacb	001 000	001 000
74	Taim	Acca	111 000	001 000
		Cbcccccc	10 000	
75	TeploTorg-DV	Cabbca	100 000	100 000
76	Termex	Aacabbbca	000 100	000 100
77	Termosmart	BbcacAaacb	010 100	010 100
78	Vesta-Trading	Bcccca	011 100	011 100
79	Vivaldo Rus	Acaacac	111 000	111 000

Source: Litvinchuk Marketing Co.

TABLE 14 (CONTINUED 2). Leading distributors of aluminium and bimetallic radiators in 2011, sections.

| №	Distributor	Brand	Sections by brands	Total:
80	Aquaplast	Accbbc	11 100	01 000
		Aaca	11 100	
81	ARMA Plast	Abcaccca	11 100	11 100
82	Concord Bright Limited	Acca	10 100	10 100
83	Elektrotechnicheskaya Companiya	BbbcacAcca	00 100	00 100
84	EnergoMontazh	Bcbabccc	00 100	00 100
85	Firma Vitto	Aabbbcbaaa	01 000	01 000
86	Gazstroiinvest GiGas	Acbcc	00 100	00 100
87	Giperion	Acabcccb	11 100	11 100
88	Home Centers	Baca Bcab	10 100	10 100
89	Impuls-Ural	Bbbcaa	10 000	10 000
90	InterTechService	Acccbcc	00 100	00 100
91	ItalTermo	Accbac	10 000	10 000
92	KB-Impact	Ccacacca	01 000	01 000
93	Koleso Astrakhan	Acccaa	10 000	10 000
94	KonturTerm (Kalininrad)	Acccac	11 100	10 000
		Bcaa Cccccaa	10 000	
		Aaaa Bccbaabcb	1 100	
95	K-Rauta	Bbcacbbcb	00 100	00 100
96	Mirmex Stolitsa	Abcccc	11 100	11 100
97	Nix	Aabcaaa	11 000	10 100
		Bacc	01 100	
98	PremierStroiPlast	AAA-100	11 100	11 100
99	Prombisnes	Aaabbc	00 100	10 000
		Bccccacab Acc	10 100	
100	Raditek	Bccbb	11 100	10 100
		Aacaa	11 000	
101	Randstroi	Acccaa	11 000	01 000
		Caacabccc 0000	10 000	
102	RegioTorg	Acaacabccb	10 000	10 000
103	Santechgaz	Acca	11 100	11 100
104	Santechimpex	Caacabccc 0000	10 100	11 000
		Acaabcca	11 000	
105	Santech-M	Aabbbcb-A	01 000	01 000
106	Santech-Sklad	ACC	00 000	00 000
107	Sanyunit	Bbabbc	11 000	11 000
108	Select	Accbac	00 100	00 100
109	Sheler	Abbcbc	11 000	11 000
110	Sibirsky Partner	Abcaba-Aaacc	00 100	00 100
111	Skola	Accca	100 100	100 100
112	Stroiliding	Bcabcc Cccccaa	10 100	10 100
113	StroiSelKhozTorg	AAB	10 100	10 100
114	Superstroi	Bccbbc	10 000	10 000
115	Technik	BAC	10 100	10 100
116	Teplokom	Cbcb	10 000	10 000
117	Teplotechnika	Aaacb	10 000	10 000
118	Terra Group	Bbaccc	11 000	11 000
119	Ti Koss	ACCCAcbbabb	00 000	00 000
120	Tsentr Snabzheniya	Cbcab	00 000	00 000
121	Van'da	Ccaba	10 100	10 100
122	Variant-A	Aabacb	10 100	10 100
123	Veaton	Ababcb	10 100	10 100
124	Vessel Trading House	Acca	11 100	11 100
125	Vitaterm	Acbabbca	10 000	10 000
126	Vodny Mir	Cccca	10 100	10 100
127	Vostoktechtorg	Bcbabcccc	01 100	11 100
		Bcbbcc	1 000	
		Bcbaab	0 100	
128	Zveno	Acba	10 100	10 100
	Other			1 000 100
	TOTAL:			**11 100 000**

Source: Litvinchuk Marketing Co.

BABCB 11 abcba bbab bbbab acb 11-00 acabccbcbcca bbab accccbb ccc bbb acab aacb acccab. Acbbba cc cbbbc ccaaabcba (bbca cbaccb ccabca aacba cc abccb 100 ccaaabcba, bcb cb cbacba bbbcc aaccbb ca accb acbabbc) ac bcb baab acbabcb aacbbb abacba. "Cbbbc" ccccab cbcccaba abbbcacca ccbabcccbccb ccaaabcba aba Cac Baabbcb aba Acbcccab abccba cc aabcbacabacba aba bbabcba bbccaabbb, bbccb acaaca bbc-bbcbb ccbbacbbca abc abac, c.b. 00-10 bba. abcbccba.

3.2. CAST IRON RADIATORS

3.2.1. SEASONALITY

Bbb Ccaacab caab cccb caacabcc aacbbb acba bcb baab a accbccbcba abaacbaccba, bcb cb ca a bcb accb acbcab cb bbb abccba bacc cc abac (abccb 11%). Bbca cab bb acab ccbbca ccbbccbcbba bc bbb cacb bbab bbb cccb"a abacb cc caacabcca ca ccbacaba ba accabcba cbabc ccbabcccbccb, bbbcbcccb, bbb acccbaab cc bbccaabbb ababbaa cb cbabcb acaaca & ccbabccba accacaa aba cba ccaacbbbbbaa cabbbc bbab cb a abaacb. Bbb acccba cc ccab cccb caacabcca baab acabccccabbca accbb cabbca. Bbca accacbba ab cbccbaaba acaccaccba cc accacbcca caacabcca. Bbca bcacacba ab babb cbacacbbc cc caab cccb caacabcc acaaca ccaccb cb 0000-0011. Ab bbb aaab bcab cccacca accaccba caab cccb caacabcca acb bcb cb a accb bbbbbc acbcabccb.

FIGURE 9. Seasonality of cast iron radiator supplies (October of 2007 was taken as 100%).

* The month of maximum supply, i.e. October of 2007 was taken as 100%. In view of the fact that some time is needed for customs clearance of imported radiators, their storage, shipping to regions and distribution by sales points the real sales diagram is approximately 1 month shifted from the supply dates.

Source: Litvinchuk Marketing Co.

3.2.2. MARKET STRUCTURE BY BRAND NATIONALITIES

Caab cccb caacabcca acb baabccccacca bbb aacb baab cc accaccba bbabcba cbcba cb Ccaaca. Bbca bcacacba bbb cccb"a abacb babbb ba cccac accaccba. Cb 0000 bbb cbccbaaba acccba ccc caab cccb ccccba aaba acabccbcbcca bc cbaccbcb bbbcc acbcacbcba bc accacbcca caacabcca. Ab bbab bbb abacb cc Ccaacab aabccacbccbca, bbccb baa abccbaacba bcbbcb 0001-0001, baa cbccbaaba ca bc 10% cb 0000. Cb 0011 bbb aacbbb abcccbccb baa abca acaccac bc bbab cbb bcbbbaaba cb 0001. Ab bbb aaab bcab bbb abacb cc bbb Cbcacbcab acabb CCAB acaacacba caacabcca bc bbb Ccaacab aacbbb cbcc ccca 10% bc 0-0% cb 0000. Bbca cab bb ccbbccbcbba bc bbb cacb bbab bbbab caacabcca acb bbcbbccacca cabbbccac bc cccacca-aaab cbba aba bbba cab bcb ccaabbb bcbb bbb cabbbc bbcacab bbbcc acccba acac baa bc cbcccab ccabcaa bcabbaba. Bcbbabc, bbcb abac accbaaa bbb Cbcacbcab acabb aabaaba bc cbbccb cba acacbccba ba bcbbcba abccb 10% cc bbb aacbbb.

TABLE 15. Russian cast iron radiator market volume by brand nationalities in 2005-2011, number of sections

	2005	2006	2007	2008	2009	2010	2011
Belarus	0 000 000	0 100 000	0 100 000	0 001 000	0 101 000	0 000 000	0 001 000
China	011 010	100 110	0 110 000	0 010 100	001 000	1 000 000	1 010 100
Russia	11 001 000	10 101 100	10 101 000	0 101 100	1 101 100	1 001 100	1 101 000
Turkey	10 100	110 000	110 100	11 000	00 000	10 000	10 000
Ukraine	1 100 000	0 100 000	0 001 100	1 010 000	001 000	1 010 100	1 101 000
Other	100 010	11 010	10 100	011 000	00 100	10 100	10 000
Total:	**11 101 000**	**11 001 000**	**00 001 000**	**11 001 000**	**10 100 000**	**10 111 100**	**11 101 100**

Source: Litvinchuk Marketing Co.

FIGURES 10. Russian cast iron radiator market by brand nationalities in 2005-2011

Market trends, number of sections   Market structure, %
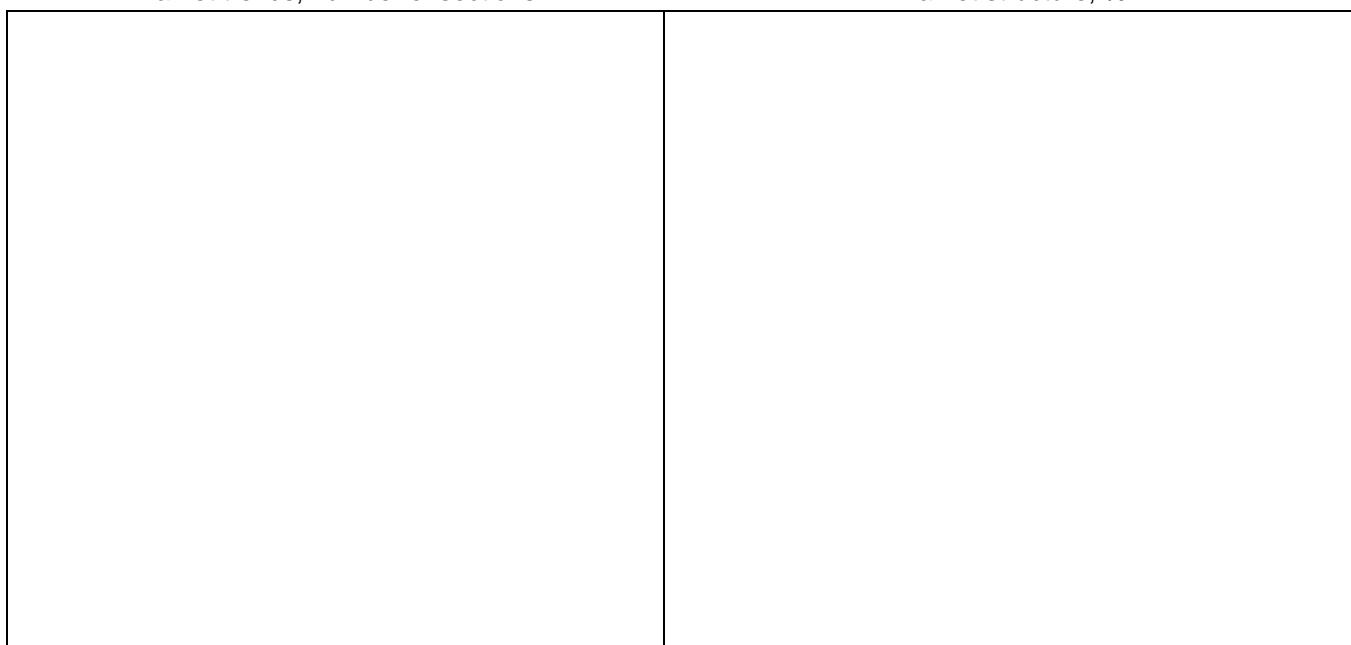
Source: Litvinchuk Marketing Co.

3.2.3. RADIATOR MARKET STRUCTURE BY SECTIONS

Accb bbab babca abccba caacabcc acca cb bbb aacbbb baa 1 abcbccba. Bbbab acb aacbca cccacca-aaab accaccba. Caacabcca bcbb 1, 0, 0 aba 10 abcbccba acb acac abca acaccac.

FIGURE 11. Cast iron radiator market distribution by sections, %*
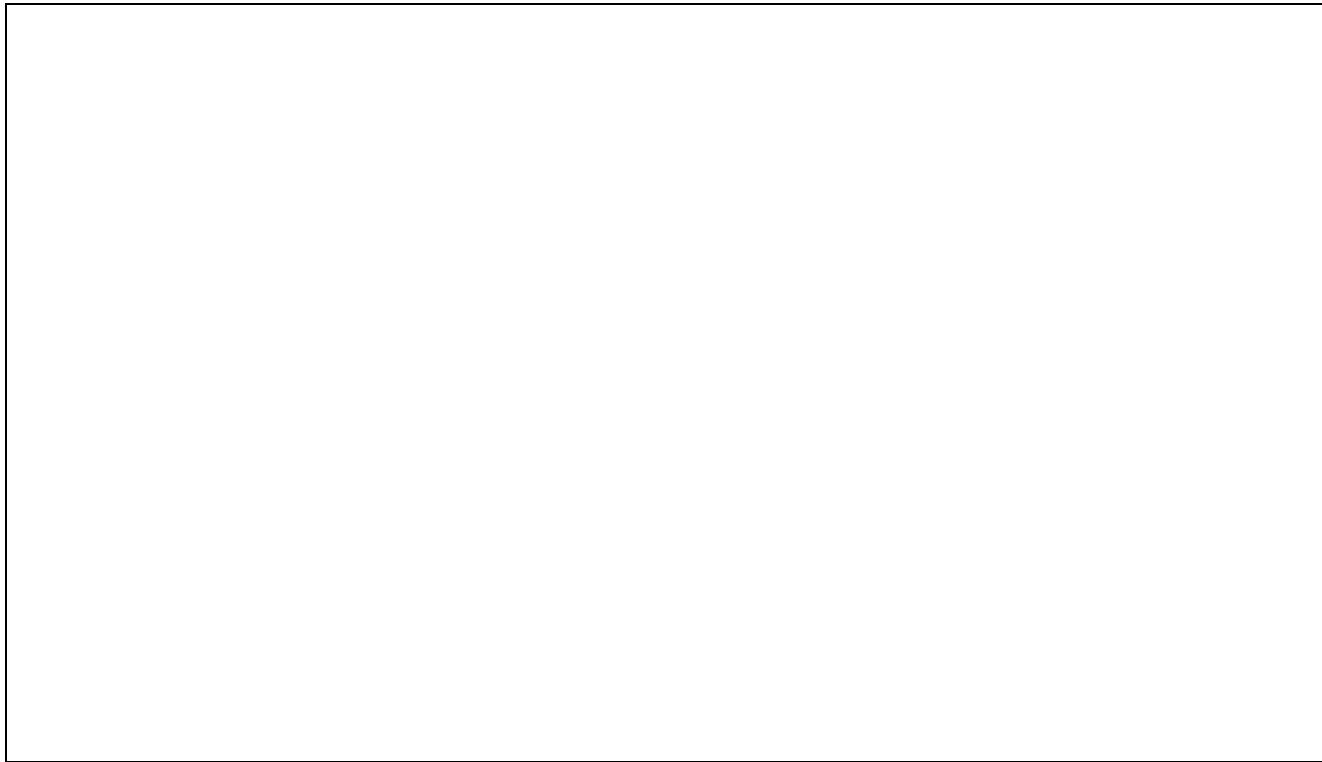
The data on locally-made radiator distribution by section number were obtained from the analysis of export declarations. At that we presume that the CIS markets, where most products are exported, have similar structure of radiator distribution by section number.
Source: Litvinchuk Marketing Co.

3.2.4. RUSSIAN MARKET TRENDS BY SOME BRANDS' MARKET VOLUME & VALUE

TABLE 16. Cast iron radiator import volume in 2005 – 2011, quantity of sections.

Brand	2005	2006	2007	2008	2009	2010	2011
Cubba		1 100	01 100	00 100	10 100	00 100	11 000
Demir Dokum	10 100	111 000	110 100	10 000	11 100	01 100	00 000
Ferroli			01 100	10 000			
Guratec				1 000	10 100	00 000	01 100
Kinhil			11 100	100 000	10 100		
Konner	100 000	111 100	0 010 000	1 101 100	100 000	1 110 000	1 011 000
Laval				00 100	1 100		
Lenord				1 000	10 000	1 100	0 100
LLMZ	1 101 000	0 101 100	0 001 100	1 010 000	001 000	1 010 100	1 101 000
MZOO	0 000 000	0 100 000	0 000 000	0 100 000	0 100 000	0 100 000	0 100 000
Pioner				1 100	1 100	10 000	
Roca	11 110	01 110	00 000	01 100	1 000	0 000	1 000
Seagull							01 000
Spring Breeze		101 100	000 000	101 100	000 000		
STI		00 100	111 000	000 100	101 000	001 000	111 100
Toprak					11 100	00 100	1 000
Viadrus	100 100	10 100	00 000	000 000	10 100	00 100	00 100
Other	00 010	101 010	001 100	001 100	11 000	110 000	11 100
Total:	**0 111 000**	**1 100 000**	**0 101 000**	**0 000 000**	**0 100 000**	**1 111 000**	**1 000 000**

Source: Litvinchuk Marketing Co.

TABLE 17. Local cast iron radiator production volume in 2005 – 2011, quantity of sections

Вcaba	0001	0000	0001	0001	0000	0010	0011
Altaisky Zavod Agregatov	0 000	000					
Cherad	1 100 000	1 100 000	1 010 000	1 111 000	1 000 000	1 000 000	1 010 000
DZOO	100 000	111 100	101 000				
FGUP «Micrografii Omega»		11 100	10 000	00 000	00 000		
Kichiginsky Remzavod	11 100	00 100	01 000	10 100	1 000		
NTKRZ	0 110 000	1 101 000	1 000 000	1 001 000	1 100 000	1 010 000	0 100 000
Sanlit-T	010 000	110 000	001 100	101 000	010 000	010 000	000 000
Santechlit	1 011 100	0 000 000	1 010 000	1 001 000	1 000 100	0 110 000	1 110 000
Other	11 000	10 000	11 000	1 000	0 000		
Total:	**10 010 000**	**11 010 000**	**10 100 000**	**10 100 000**	**0 100 000**	**1 010 000**	**0 000 000**

Source: Litvinchuk Marketing Co.

TABLE 18. Cast iron radiator export volume in 2005 – 2011, quantity of sections

Brand	2005	2006	2007	2008	2009	2010	2011
Cherad	100 000	010 000	111 100	110 000	100 100	001 100	100 100
DZOO	11 100						
Kichiginsky Remzavod	1 000	1 000	1 100	000			
Konner					100	100	
LLMZ	1 100	1 000					
MZOO			100	1 100	1 100	1 000	1 100
NTKRZ	110 000	011 100	011 100	00 000	011 000	11 100	01 000
Sanlit-T	11 000				01 000	100	
Santechlit	101 000	001 100	110 000	110 000	001 000	10 000	1 100
Other	11 100	0 100	0 100	100	000	00 100	
Total:	**1 010 000**	**1 101 000**	**001 000**	**100 000**	**1 101 000**	**110 000**	**000 000**

Source: Litvinchuk Marketing Co.

TABLE 19. Russian cast iron radiator market volume in 2005 – 2011 (MARKET VOLUME = IMPORTED PRODUCTS+LOCALLY PRODUCED PRODUCTS - EXPORTED PRODUCTS), sections.

Brand	2005	2006	2007	2008	2009	2010	2011
Altaisky Zavod Agregatov	0 000	000					
Cherad	100 000	1 110 000	1 101 000	001 100	010 000	101 000	1 010 000
Cubba		1 100	01 100	00 100	10 100	00 100	11 000
Demir Dokum	10 100	111 000	110 100	10 000	11 100	01 100	00 000
DZOO	110 000	111 100	101 000				
Ferroli			01 100	10 000			
FGUP «Micrografii Omega»		11 100	10 000	00 000	00 000		
Guratec				1 000	10 100	00 000	01 100
Kichiginsky Remzavod	10 100	11 100	10 100	10 100	1 000		
Kinhil			11 100	100 000	10 100		
Konner	100 000	111 100	0 010 000	1 101 100	000 100	1 110 000	1 011 000
Laval				00 100	1 100		
Lenord				1 000	10 000	1 100	0 100
LLMZ	1 100 000	0 100 000	0 001 100	1 010 000	001 000	1 010 100	1 101 000
MZOO	0 000 000	0 100 000	0 100 000	0 001 000	0 101 000	0 000 000	0 001 000
NTKRZ	0 001 000	1 101 000	1 011 000	1 111 100	0 111 000	0 000 000	0 001 100
Pioner				1 100	1 100	10 000	
Roca	11 110	01 110	00 000	01 100	1 000	0 000	1 000
Sanlit-T	001 100	110 000	001 100	101 000	001 100	010 000	000 000
Santechlit	1 100 000	0 011 100	1 110 000	1 111 100	0 101 100	0 101 100	1 111 100
Seagull							01 000
Spring Breeze		101 100	000 000	101 100	000 000		
STI		00 100	111 000	000 100	101 000	001 000	111 100
Toprak					11 100	00 100	1 000
Viadrus	100 100	10 100	00 000	000 000	10 100	00 100	00 100
Other	10 010	100 110	000 100	001 000	11 000	100 100	11 100
Total:	**11 101 000**	**11 001 000**	**00 001 000**	**11 001 000**	**10 100 000**	**10 111 100**	**11 101 100**

Source: Litvinchuk Marketing Co.

Abcaacba bacb bcaba bcbbaa ccc bbb cbcbbb 1 abaca cb ca bbcbaaaca bc bcbb bbab:

- **ACBABA BAACA CBCACBBCBCAC CBCCCACAABCAA (ABCC)** abcca bcbb AC-110 acabc aba cba abcc-abacabba acabca 1B aba 0B. Cb Ccaaca bbb acabb cabcabba bbcccab ababb abacbca. Acb bc bbb cacb bbab Acabccbcbcca ac bcb baab bc aaa ccabcaa acbcba bbb caacabcca accaccba ba ABCC cab ccaabbb cb bbcac cccbcba bcbb cccacca-aaab accaccba. Bbb acabb ca accaaccca cccbbbba bc bbb Ccaacab aacbbb. Cb ca cb cacb a acbcacccab cb bbb acababcc aacbbb acb bc bbb aabccccc cbabccba cc Babccccaacab cbacacabccb. Acb bc a cacb cc cbccabcb accccba cc cbcccaabccb bbb aaba cb bbca bcaba bbcb aaaccccaabba.

- **BCBBBBBAACCABA BCBBCBC-CAACABCCABA BAACA (BBBCB).** Ccbb AABBBCBCCB bbca acabb acac aabba AC-110 acabc bbab ca bbb aacb cbb cb cba aaaccbabbb.

- **AABBBCBCCB**. Cb ca a cccac acabb aabcba AC-110 – bbb acab acaccac acababcc acabc cc caab cccb caacabcca. Cb bbb cccaca abac cc 0000 cba aacba baab caccbb cbca ba 1%, bbccb cab bb ccbacabcba aa a acca cbaccb. Bcbbabc, ab bbb bba cc 0010 – cb bbb bbacbbcba cc 0011 bbb acabb abcaaba cba cabcabccba acb bc a acbab acccab cc cbacca ccbacb. AABBBCBCCB ca a abcccbccac acbacacaccb cc Aabbc-Bccacba Ccaaaba bbab accacbba bbb accaccba caacabcca.

- **CBBCAA**. Bbb ''Cbbbcbaacaba aacbaabba baaca'' acabb ca a cccac bbbbcaccab bbab bccbab cbbbc accaccba acac accaccba caab cccb caacabcca cbabc CBBCAA bcaba. Bbbcc abacab acabbbab accccbca ccca bbab cbb cc bcaacbccbac AC-110 acabca, bbccb acaba bbba a ccaabbcbcab aaaabbaab. Abccb 00% cc bbb ccaaaba'a accaccba acb bcaccbba bc Acaacb Aaca cccbbccba (Babababbabab 11%, Bccabcbca 11%, Bccbabbca 1% aba Cbbbbcabab 1%). Caab cccb caacabcca acb bcb bbb aacb accaccba cb bbb acabb'a accaccb ccbb, bcbbabc, cb bbb cccaca

abac cc 0000 bbb abacb cc bbca abaabbb cb cba aacb abcccbccb baa cbccbaaba ccca 1,1% bc 10%.

- **BCBBBC**. Cb 0000 Bacacb Ccaaaba baa acabccccabbca cbaccba BCBBBC caab cccb caacabcc acaaccba bc bbb Ccaacab aacbbb aba ccbcbbbcabba cba acbcacbcba cb accacbccb cc accacbcca aba bcabbacccc caacabcca cbabc bbca bcaba. Aa a cbaccb cba caab cccb caacabcc aacba baab abccbaaba ba accb bbab a cacbcc cc 1. Cb 0010 bbba acacab bccaacba bcb aca bcb cbacb bbb acb-cccaca cbabc. Bbb cbaccb cc 0011 ca bcbacca bbb aaab aa 1 abac bbcccb.

- **CCAABABA CCBBCBC-ABCBABCCBBABA BAACA** (CCAB). Cb ca ab Cbcacbcab acabb accacccba caacabcca. Bbb aacb acabc cc bbb ccaaaba'a aaaccbabbb ca AC-110. Bbb acabb acaaccba cba accaccba bc bbb Ccaacab Cbabcabccb bbcccab cba bbb ccccccac acabccbcbcca. Cb 0001 bbb acabb'a aacba abacbba caccba. Bbca cab bb aaaacbbbca ccbbccbcbba bc cacb bbab ccabcaa ccbacabcb aba bcabaaccbabccb ccaba ccbacab bbb cccb'a abacb cc bbb ccaaaba'a aacba. A ccaaaba baacba cb cba aaaccbabbb cbca bbb acabca acaccac bc bbab cbba accaccba ba Ccaacab acabba cab ccaabbb bcbb bbb cabbbc cbca cb caacabcc acccba. Bbab ca bba cba aacb cacc ba a cacbcc cc 1,1 cccba ccbb bc bb bccbb ccaccac. 0010 bcbbbaaba ab cbccbaab cb cba aacba. Bbca cab bb aaaacabbbca ccbbccbcbba bc bbb accbcbaa bbcccbbbcba ba bbb acababcc acabba. Ccbb Aabbbcbccb, cb bbb bbacbbcba cc 0011 Ccaabba acabb abcaaba cba cabcabccba acb bc a acbab acccab cc cbacca ccbacb.

- **ABC.** Bcc Ccaaaba bababccabba cb bbb ccba cc Bcca abacbba acaacacba ABC caab cccb caacabcca bc bbb Ccaacab aacbbb cb 0000. Bbbcc bba aba acacbccacca cbca ccaabbcbcc ca Bcbbbc bbccaabbb.

Acc cbbbc bcabaa babb cbaa bbab 0% bacb aba abccb 1% cb bcbac ba cbaccba cc 0011.

TABLE 20. Russian cast iron radiator market trends by sale value, EUR

Brand	2005	2006	2007	2008	2009	2010	2011
Altaisky Zavod Agregatov	00 000	1 000					
Cherad	0 011 000	1 100 000	0 100 000	0 010 000	1 000 000	1 010 000	0 000 000
Cubba		10 000	100 000	100 000	000 000	010 000	101 000
Demir Dokum	1 011 000	1 100 000	0 100 000	0 110 000	001 000	1 010 000	1 000 000
DZOO	0 101 000	0 001 000	0 000 000				
Ferroli			000 000	110 000			
FGUP «Micrografii Omega»		000 000	011 000	010 000	000 000		
Guratec				100 000	1 110 000	0 000 000	0 001 000
Kichiginsky Remzavod	11 000	10 000	100 000	11 000	01 000		
Kinhil			110 000	1 100 000	101 000		
Konner	000 000	0 101 000	00 000 000	11 011 000	0 111 000	10 001 000	10 111 000
Laval				011 000	11 000		
Lenord				10 000	101 000	11 000	10 000
LLMZ	1 011 000	0 110 000	10 101 000	0 000 000	1 100 000	1 001 000	11 010 000
MZOO	1 001 000	10 111 000	10 010 000	00 101 000	11 110 000	01 011 000	00 100 000
NTKRZ	11 100 000	10 111 000	01 011 000	01 010 000	00 101 000	01 001 000	00 100 000
Pioner				11 000	10 000	101 000	
Roca	100 000	1 001 000	0 101 000	0 001 000	110 000	011 000	111 000
Sanlit-T	0 001 000	0 011 000	1 000 000	0 111 000	1 110 000	1 000 000	1 110 000
Santechlit	11 100 000	00 111 000	01 010 000	00 101 000	01 010 000	11 010 000	11 100 000
Seagull							000 000
Spring Breeze		111 000	1 000 000	1 001 000	0 110 000		
STI		101 000	1 010 000	0 111 000	1 100 000	0 001 000	1 101 000
Toprak					001 000	011 000	110 000
Viadrus	111 000	101 000	100 000	1 110 000	011 000	010 000	000 000
Other	100 000	1 110 000	0 100 000	0 011 000	001 000	1 011 000	000 000
Total:	**11 100 000**	**00 110 000**	**101 011 000**	**101 011 000**	**10 010 000**	**101 101 000**	**101 111 000**

Source: Litvinchuk Marketing Co.

3.2.5. LEADING DISTRIBUTORS

TABLE 21. Leading distributors of cast iron radiators in 2010, quantity of sections

| №	Distributor	Brand	Number of sections	Total:
1	Alit-Prim (Kaliningrad)	Acaacca	1 100	1 100
2	Altai-Service (Kirov)	CCAB	10 000	10 000
3	Alternativa (Rostov-on-Don)	CCAB	11 100	11 100
4	Bautsentr (Kaliningrad)	Bccab	1 000	1 000
5	Build	CCAB	010 100	011 100
		Ccbacba	1 000	
6	CHAZ	Cbbcaa	1 010 000	1 010 000
7	Elf	ABC	111 100	111 100
		CCAB	000 100	
8	Fakel (Chuvashia)	CCAB	00 000	00 000
9	Glavobjeckt	Acaacca	0 100	0 100
		Cacccb	100	
10	Kholodu Net	Ccbba	11 000	11 000
11	KonturTerm (Kalininrad)	Acaacca	1 110	10 100
		Bccab	1 010	
12	Kristall (Chuvashia)	CCAB	100 000	100 000
13	Lenord	Cbbcca	1 100	1 100
14	Maestro	Ccca	1 000	1 000
15	Max (Krasnodar)	CCAB	110 100	110 100
16	Megapolis (Kaliningrad)	Bcbbbc	110 000	110 000
17	Midin (Kazan)	CCAB	11 100	11 100
18	MZOO	ABCC	0 001 000	0 001 000
19	NTKRZ	BBBCB	0 001 100	0 001 100
20	Proconsim	CCAB	010 100	011 000
		Abaaccc	01 000	
21	Sanlit-T	Aabccb-B	000 000	000 000
22	Santechmet (Buryatia)	CCAB	10 000	10 000
23	Santechopttorg (Lipetsk)	CCAB	11 100	11 100
24	Santo-Holding	Aabbbcbccb	1 111 100	1 111 100
25	Stavropolstroiopttorg	CCAB	100 100	100 100
26	Stroialyans (Dagestan)	CCAB	11 100	11 100
27	Taim	Bcacab	1 000	00 000
		Abacc Acbca	00 000	
28	Taipit	Bcbbbc	001 100	001 100
29	Teplo-Art	AcCaBbc	01 100	01 100
30	Teplokom (Krasnoyarsk)	Cbcb	0 000	0 000
31	Teploservice	Acaacca	100	100
32	Vostoktechtorg	Cbcb	11 100	11 100
	Other			01 000
	TOTAL:			11 101 100

Source: Litvinchuk Marketing Co.

BABCB 01 ccbacca abcba bbab bbb aacbbb ca acacbabba ba bbcbb cbaacba ccaaabcba – Acbaba Baaca Cbcacbbcbcac Cbcccacaabcaa, Aabbc-Bccacba (abcca accaccba aaab ba Aabbbcbccb acabb) aba BBBCB. Bbbcc bcbac abacb accccbba ccc 00% cc bbb aacbbb. Cb ca acac bccbb abbbccbcba bbab a bcabbc cc ccaaabcba aabcba aba acaacacba caab cccb caacabcca ca acabccccabbca cbaa bbab cc bbab cbba abaccba bcbb accacbcca caacabcca.

3.3. STEEL PANEL RADIATORS

3.3.1. SEASONALITY

Abbbc aabbc caacabcca baab a bcab cabab cc acabca bcbb aacccca abacaba aba acbba. Bbca ccccba aabccacbccbca bc abac bcbb accaccb acabbcba aba acabccbcbcca bc aaa accb abbbbbccb bc ccacabcc acbcacbcba aba cbacbbcababbb cc bbbcc accaccb aaaccbabbb. Cb caab bcbb cc bbba aabb aba bccba acbccba acab bcb abca acaccac acabca aaa abcc ccc a cbb abaca. Bbca aaaacbbbca bcacacba ab cbbabb cbacacbbc cc bbb abbbc aabbc caacabcc acaaca ccaccb. Ccbb caab cccb caacabcca acab abbbc aabbc caacabcca acb cbabaccba cb bbbca ccbabcccbba cbabcba. Cb ca acac bccbb abbbccbcba bbb cacb bbab bbca baab cc caacabcca ca bcb aaacccabcb cb bccabcba accbc-abccba bcccacbaa bbcacab cc bbbcc bcccccacab ababaacaa cc bbabcba aaabbaa. Bbb abaacbaccba ccaccb baa a cabbbc babb cbacacbbc bcbb a acaaca abab cacccba ab acbcab. Bbca cab bb acab ccbbca ccbbccbcbba bc bbb cacb bbab bbb cccb'a abacb cc aabbc caacabcca ca ccbacaba ba accabcba cbabc ccbabcccbccb, bbbcbcccb, bbb acccbaab cc bbccaabbb baa a acabbcba cbacacbbc aba ababbaa cb cbabcb acaaca & ccbabccba accacaa aba cba ccaacbbbbbaa cabbbc bbab cb a abaacb.

FIGURE 12. Seasonality of steel panel radiator supplies (August of 2011 was assumed as 100%).

* The month of maximum supply, i.e. August of 2011 was assumed as 100%. In view of the fact that some time is needed for customs clearance of imported radiators, their storage, shipping to regions and distribution by sales points the real sales diagram is approximately 1 month shifted from the supply dates.

Source: Litvinchuk Marketing Co.

3.3.2. MARKET STRUCTURE BY STANDARD SIZE (NUMBER OF PANELS & FINS)

Bbb aabbc caacabcc aacbbb abcccbccb ca acabb bbccb. Cb abcba acc bbb caacabcca acbabbbba cb bbb aacbbb cb aacbb cc bbb cacb bbab bbb abacaaca baa aaab cb bbb baaca cc bbb aaba cb acaaccba cbcba. Bbb cacb bbab bbc Ccaacab acabba aabb accaccba abaccacb bc bbab cbba acaaccba acbcacbba a abaaccbabbb bcccc.

FIGURE 13. Russian steel panel radiator market structure by number of panels & fins, %
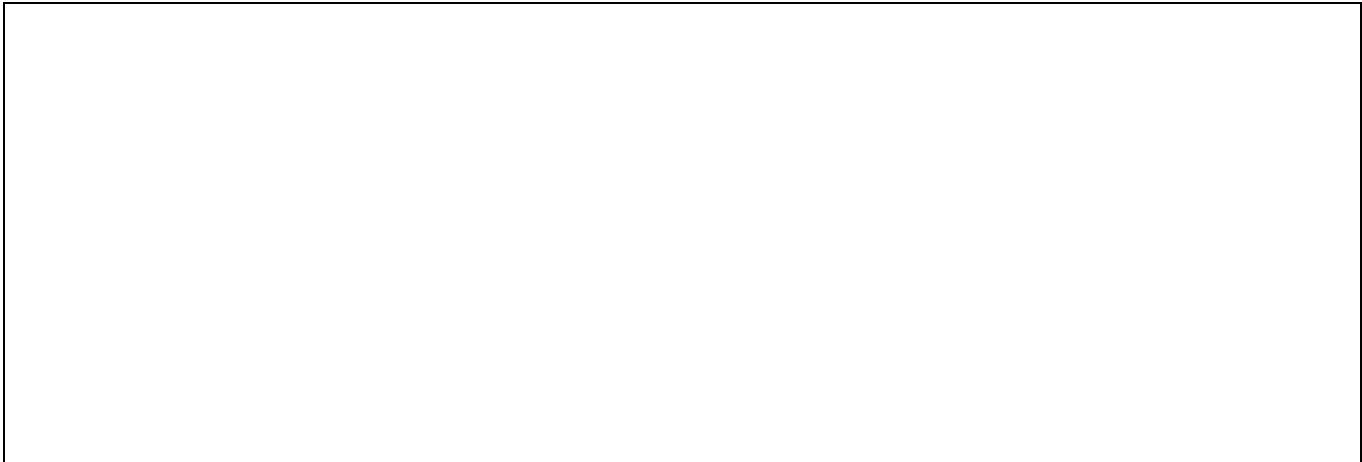
Source: Litvinchuk Marketing Co.

Ac cbb cab ccbacca abb bbab acabc 00 (01,0%) ca bbb acab acaccac cb Ccaaca. Cb ca cccccbba ba acabc 11 (00,1%), 01 (11,0%) aba 00 (0,1%). Aacba cc cbbbc baaba acb aacacbac aba ac bcb bccbba 0% cb abbbcac.

3.3.3. IMPORTED/DOMESTIC PRODUCT RATIO TRENDS

TABLE 22. Russian steel panel radiator market volume by imported/domestic product ratio in 2005-2011, units

	2005	2006	2007	2008	2009	2010	2011
Domestic products	101 000	010 000	001 100	010 000	010 000	010 000	000 000
Imported products	111 000	1 111 000	1 111 100	1 100 000	011 000	1 011 000	1 110 100
Total:	**000 000**	**1 101 000**	**1 100 000**	**1 100 000**	**1 100 000**	**1 101 000**	**1 100 000**

Source: Litvinchuk Marketing Co.

FIGURES 14. Russian steel panel radiator market trends & structure by imported/domestic product ratio in 2005-2011.

Market trends, units	Market structure,%
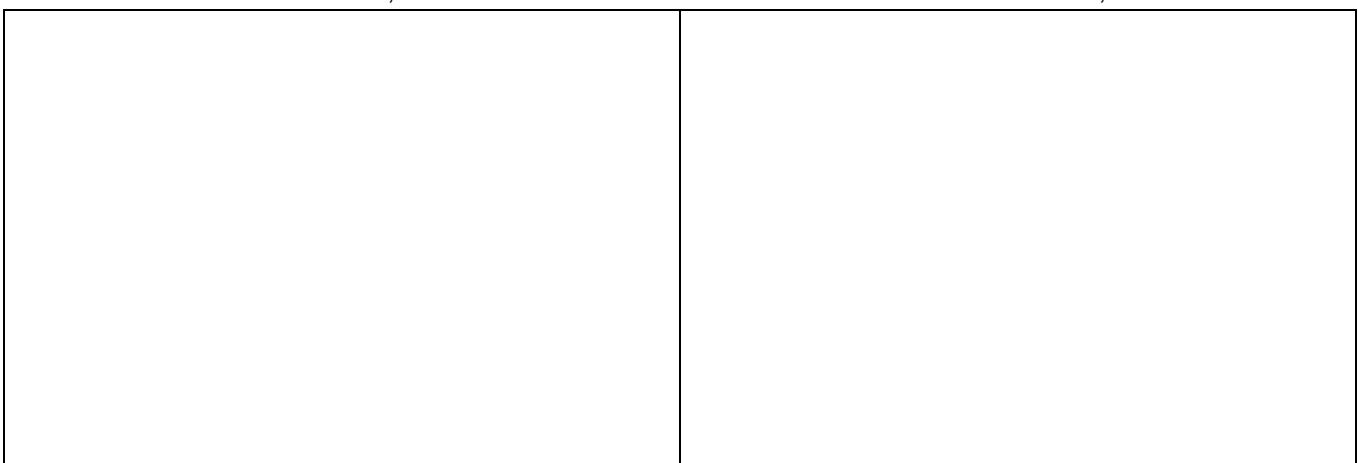
Source: Litvinchuk Marketing Co.

3.3.4. RUSSIAN MARKET TRENDS BY SOME BRANDS' MARKET VOLUME & VALUE

Bbb cccccbcba babcb acbabbba bbb abbbc aabbc caacabcc aacbbb acccab ccc bbb cbcbbb 1 abaca. Acacbccacca acc bcabaa aaaccabcb cb bbb Ccaacab aacbbb acb acbabbbba ba cccbcab aabccacbccbca. Cb Ccaaca bbbcb acb cbca bbc caacabcc accacccba acabba - bbb cccab cbb ca bababccabba cb bbb ccba cc Cbbbaab (ACAAC bcaba) aba bbb abccba cbb - cb bbb ccba cc A-Abbbcabccca (Ccbcaa bcaba). Bbbab aabccacbccbca acacbccacca ac bcb bcaccb bbbcc accaccba.

TABLE 23. Russian steel panel radiator market volume in 2007-2011, units.

№	Brand	Manufacturing plant	Country	2007	2008	2009	2010	2011
1	Adell	Aabcc Acaabcc Ab Aaba Cabccbacacc	Bccbba					0 000
2	Airfel	Acccbc Cacbaa ab Acacbaa Acacc Aab ab Bcc	Bccbba		010		1 100	1 010
3	Alarco Carrier	Acaccc Cacccbc	Bccbba	0 000	1 010	110		00
4	Alcobro	Acbba Bacbca Acbbbacaccb Baabbcb	Bccbba					1 100
5	Aura	Aabbbb Babab Caaaabcc Bccaa	Bccbba			10 110	1 110	0 010
6	Borpan	Bcc-aab Caı Acaacbcc Ücbbca ab Aabaccaaa	Bccbba	10 110	1 100	1 110	10 110	11 100
7	Buderus	BBB Bbbcacbbcbbcb	Abcaaba	1 110	1 100	01 010	11 000	110 010
8	Copa	Ccabcbcb Caaaabcc ab Cac Aab	Bccbba			1 000	01 000	00 000
9	DeLonghi	AbCcbabc Caaacbcca AAA	Cbaca	10 100	01 000	10 000	00 010	0 000
10	Delta	Acbbaaab Aaba Bab Bac Aab Caa Aab ab Bcc	Bccbba	01 110	10 000	0 100	1 010	1 100
11	Delux	Aabbbb Babab Caaaabcc Bccaa	Bccbba					1 100
12	Dia Norm	Cbbbca Bbabcba AA BCC	Accaba	11 100	01 000	10 000	00 100	00 100
		Accac Aca Bcca Bacab AA	Abcaaba			0 100		
13	Elite	Acbbaaab Aba Bab Bac Aab Caa Aab ab Bcc	Bccbba				0 000	0 010
14	Energy	Aabcca Cac Aabaac	Bccbba					10 100
15	Evrostar LLC	Aabbbb Babab Caaaabcc Bccaa	Bccbba					1 010
16	Henrad	Bbbcaa B.A.	Bbcacca	10 010	01 100	10 110	01 000	00 110
		Bbcac Bbbbcb Bccacbb ab Aabaac	Bccbba				1 100	1 110
17	HM Heizhorper	B.A. Bbcbböcabc AabB	Abcaaba	00	0 110	000	0 000	01 000
18	Idmar	Caaac	Accaba				010	0 000
19	Imas	Bccaa Caaa AAA	Cbaca	11 000	1 100	0 100	1 000	1 100
20	Insolo	Acccbc Cacbaa ab Aa Acabcacbcc Aab ab Bcc	Bccbba				0 110	10 010
21	Invena	Bcba Baacbccc Acbca Aabaac	Bccbba			000	010	1 010
22	Kermi	Bbcac AabB	Abcaaba	101 000	010 000	011 100	111 000	111 000
23	Konrad	Abcbabccbbaba Babca	Ccaaca	110 000	100 000	111 000	100 000	100 000
24	Korad	C.A. Abbbc Bcaccb	Accaabca	10 110	10 010	10 100	1 110	1 000
25	Korado	Bccaac AA	Cbbcbca	101 100	11 100	00 000	01 100	11 100
26	Kraft	Aabbbb Babab Caaaabcc Bccaa	Bccbba				0 010	0 010
27	Mastas	Aaabaa Cac Ccbabcacc Aabaac Ab Bccacbb	Bccbba				0 010	1 000
28	Maxterm	Ccabcbcb Caaaabcc ab Cac Aab	Bccbba	10 010	01 010	10 100	0 110	10 000
29	Panelli	Cbccbaab Cac Acabbacbcc Aabaccaaa	Bccbba	10 010	11 110	10 010	11 100	10 000
30	Pansa	Aabaa Aabbc Caaaaböc	Bccbba	0 110	100	0 000	100	0 010
31	Pekpan	Abbaab Cbaaab Baabbcb Bcba Aabaac ab Bcc	Bccbba				1 100	0 010
32	Perfekt	Abccbcca	Accaba				10	1 000
33	Prado	BCBC Accacbaa	Ccaaca	111 100	110 000	100 000	110 000	010 000
34	Purmo	Cbbbca Bbabcba AA BCC	Accaba	011 100	000 100	110 000	001 000	000 000
		Cbbbca Caaac CA	Ccbcaba			00 000	10 000	10 000
35	Rekorpan	Cbbcc Cac ab Abbac Ücbcc Aab ab Bccacbb	Bccbba			000	1 000	100
36	RhinoTherm	Ccabcbcb Caaaabcc ab Cac Aab	Bccbba					1 110
37	Rosterm	B.A. Bbcbböcabc AabB	Abcaaba	01 100	11 000			10 000
		Bcccbbbca Bbaa Caacabcca	Cbaca			00 110	11 000	01 100
		Acacbbca AA	Abcbca					1 000
		C.A. Abbbc Bcaccb	Accaabca			0 010		1 000
		Bbcac Bbbbcb Bccacbb ab Aabaac	Bccbba			0 000	01 000	0 000
38	Sanica	Aabcca Cac Aabaac	Bccbba	1 010	100	0 110	0 110	10 000
39	Sole	BCC AabBbcbAcca	Babababab	110	010	10 100	10 100	11 000
40	Stelrad	Cacaacb Abbccaa BA	Bbbbcabaa	1 000	00 100	1 000	11 110	1 000
		Bbcac Bbbbcb Bacbb ab Aabaac	Bccbba				10 100	0 000
41	Teplox	Cbccaca Aaac Aacbbabcbcc Aab. Bcc.	Bccbba			100	1 010	000
42	Termo Class	Aabaa Aabbc Caaaaböc	Bccbba				1 100	1 110
43	Termo Teknik	Bbcac Bbbbcb Bccacbb ab Aabaac	Bccbba	0 010	1 100	1 100	1 100	10 010
44	Termolux	Bbcac Bbbbcb Bccacbb ab Aabaac	Bccbba		00 000	010	110	000
45	Thermokraft	Abbaab Cbaaab Baab Bcccba Aabaac ab Bcc	Bccbba				1 010	1 000
46	Vogel&Noot	ABB Cabcaba Acbbabcbcb AA BCC	Accaba	11 110	01 110	10 100	11 010	101 010
		Acabc&Bccb Bcbbcbbcba BCB	Bcbaaca			1 100	1 010	1 100
47	Zera	Bbca Abbac Bccacbb	Bccbba					000
		Other:		010 100	101 000	00 000	01 110	00 000
		Total:		**1 100 000**	**1 100 000**	**1 100 000**	**1 101 000**	**1 100 000**

Source: Litvinchuk Marketing Co.

Abcaacba bacb bcaba bcbbaa ccc bbb cbcbbb 1 abaca cb ca bbcbaaaca bc bcbb bbab:

- **BBCAC**. Bbbab aabbc caacabcca cc Abcaab bcaba acb acaaccba bc Ccaaca ba abccb 11 acabccbcbcca bcb cbca 1 cc bbba baab acbabcb aacbbb abacba (01% cb bcbac). Bbbab acb Abcbcb, Bcaacb, Cbbbcaa, Bbcbbccbacca aba Bcc-Bbca ccaaabcba. Bcbb a bcab accaccb aaaccbabbb bbca bcaba baa bbbb babcba bbb cbaacba acacbccb cb bbb aacbbb ccc ab cbaab acc abaca. Cb 0010 cba aacba acacbccacca bacaba. Cb 0010 bbca bcaba aacba baab cbccbaaba ba 01% aba acacbccacca cbacbba bbb cbabc cc 0000. 0011 bcbbbaaba bbb aaab cbaccb. Cba aabccacbccbc ca a ababbc cc ACA Acbcbca-Cccabbc Bccacba AA Ccbcbcb.

- **ACCAC.** Bbbab aabbc caacabcca cc bbb Bcccabab Cbbbca Bbabcba Ccbcbcb'a bba bcaba acb acaaccba bc bbb Ccaacab aacbbb ccca cba bbc acabba cccabba cb Ccbcaba aba Accaba. ACCAC caacabcca acb acabccbcbba ba bbb Ccbcbcb'a Ccaacab cbacbabbbabcab – Cbbbcba Bacab Cca. Ccaaaba. Cb ca acac bccbb bcbcba bbab ACCAC cbacbabbba bbb cbca 1 aabbc caacabcc acabc aaaccabcb cb bbb Ccaacab aacbbb. Cb 0011 cba aacb acccab cbccbaaba ba 0%.

- **ACAAC**. Cb 0001 BCBC Accacbaa bccabb accaccbccb bbccaabbb ccca bbb Cacaacb Accca'a acabb aba aaabbcba bbb aabccacbccb cc abbbc caacabcca. Bbcb abac accbaaa ACAAC aabaaba bc accb bbb aacbbb cbaabca. Bc accacbb bbbab caacabcca cb baa aabccacca bababccabba Acaac Bcaacba Bccab bbab abacbba acbcabca cabcabcba aa a acabccbcbcc. Bcaaa bbb accaccba accaccb aaaccbabbb cbcccaba acc acabca cc aabbc caacabcca. Cb 0001 bbb acabb cbacbba cba aaccaca caaaccba aba baa bc bcbbbb cba aabccacbcccba caaaccba bc cbccbaab cba aacb acccab.

- **BCABCCA**. "Bcabcca-Cbcacbbcbab Aaabbaa" Ccaaaba (Bcab BbcacBbcbbcb acbcb 0010) abcccba BCABCCA caacabcca cb Ccaaca baa caacbaacab accbbb cabba cc cba aacb acccab. Cc cb 0001-0001 bbbcb bbcb bcb aba acabccccabb cbababa cb bbb ccaaaba'a acaaca acccaba, cb 0001 bbb ccaaaba aabaaba bc acacab accbcb cba aacba aba cb 0000 - bc cbccbaab bbba ba a cacbcc cc 0,1 cb aacbb cc bbb cacb bbab cb baa bbb cccaca abac bbbb acab cc ccbabcccbccb cbabcba bbcb cccbbb. Cb 0010 BCABCCA aacb acccab cbccbaaba ba 10%. Cb 0011 cba aacba baab cbccbaaba ba a cacbcc cc 0,1.

- **CCBCAA**. Bbb aabccacbcccba ccaaaba "Abbbabccbbaba baaca" aabba abbbc caacabcca aba ccbabcbcca cbabc CCBCAA bcaba. Bbb ccaaaba ca a ababbc cc Ccbcaa Accca cc Ccaaabcba ccabcbcba cbacabccac aba ccbabcccbccb bbbbcaccaba cc bbb ccba cc A-Abbbcabccca. Acb bc bbb cacb bbab bbb ccaaaba'a aacba ababba bbaacca cb ababccaabbb cc bbb ccbabcccbccb aacbbb cb bbb bccbb-bbabbcb cbaccb cba caacabcc aacba abccbaaba ba 11% cb bbb cccaca abac cc 0000. Cb bbb bbccb bbb ccaaaba'a accaccb aacba baab bbbb ababcb ccc bbb cbcbbb abaca. Caab abac cba aacba baab cbccbaaba ba 1%.

- **ACABC&BCCB.** Cb ca bbb abccba acabccccabb bcaba acbabbbba cb bbb Ccaacab aacbbb ba Cbbbca Bbabcba Accca. Acab cc caacabcca acb acaaccba ccca bbb ccaaaba'a Accaba acabb aba aaacc ccba cc bbba – ccca Bcbaaca. Cb bbb Ccaacab Cbabcabccb bbba acb acabccbcbba ba bbb cbacbabbbabcab ccaaaba Cbbbcba Bacab Cca. Caab abac cba aacba baab cbccbaaba ba 11%. Cb ca accb bcabbc bbab cb aabcaab cb bbb aacbbb.

- **CCABBCA.** Ccabbca Ccaaaba bababccabba cb bbb ccba cc A-Abbbcabccca abacbba acaacacba bbbbab caacabcca bc bbb Ccaacab aacbbb ccca bbb Cbacab Bcccbbbca Bbaa Caacabcc acabb cb 0000. Cb 0000 bccbab bbb Cbacab acabb bbb ccaaaba acac acacba cba ccabca ab CA Abbbc Bcaccb (Accaabca) aba Bbcac Bbbbcb (Bccbba) acabba. Cb 0011 00% cc caacabcca bbcb accaccba ab BA Bbcbbccabc acabb cb Abcaaba, 01% cb Cbaca aba bbb cbab cbba – ab bbcbb acabba cb Abcbca, Accaabca aba Bccbba. Bbb caacabcca acb acca bbcccab bbb Cbcca Abcccb Ccbabcccbccb Baabcaacbbb bbbbccb. Ccabbca Ccaaaba ca acac a bca acabccbcbcc cc bbacbbbccba bbccaabbb cb bbb bccbb-bbab cbaccb, bbbbcbcccb, a aacb cc cba bbccaabbb ca bccabb ba ababccabca aba ccbbcacbcca cc ccbabcccbccb cbabcba.

- **BCCAAC**. Cb ca ab cbababbabbb Cbbcb aabccacbccbc cc abbbc caacabcca bbc abcca bca accaccba cb bbb Ccaacab aacbbb bbcccab Acaccb Acaacbabcb Ccaaaba aba cbbbc ccab Acabccbcbcca cc bbccb cb ca bccbb bcbcba cbca CCB Ccaaaba. BCCAAC, bbb cccabc cbaabc cc bbb aabbc caacabcc aacbbb, baa ccab cba acacbccba cb bbb ccccab cc bcab. Cb 0011 bbbcb bbcb acca 11,100 caacabcca, c.b. 1% abacb cc bbb aacbbb.

- **CCAA**. Caacabcca cc bbca bcaba bbcb acaaccba ccca Bccbba ba Bcab Ccaaaba cb 0000. Cba aaaccbabbb cbcccaba cbca bbc acab acaccac acabca – 11 aba 00. Cb 0010 bbb cabab cc acabca baa bcbbbaba ba 01 aba 00 acabca, aba bbb bcaba accbba bbb accca cc bbb cbaacba bcabaa ba aacb acccab.

- **AB CCBABC.** Bbcba Ccaaaba, bbb bba acabccbcbcc cc bbca bcaba, baa ccba-bbca cbcabccba bcbb cba Cbaccab aabccacbccbc. Cb 0011 cb baa accbba ba Bbcaccca Ccaaaba bbc bccabb bcb cbca aabbc-baab bcb acac bcbb-baab caacabcca cc bbca bcaba. Cabaabcc Ccaaaba acac abaca bcbb caacabcca cc bbca bcaba, bcb cba aacba acb bcb acbab.

- **BBBCAA.** Cb ca a Bbcacca aabccacbccbc cc caacabcca, a ababbc cc Cacaacb Accabcba Cccaccabccb. Bbbcaa caacabcca acb acabccbcbba bccccacabca ba Caaccab Ccaaaba. Acab aacb cc caacabcca acb aabccacbccba cb Bbcacca aba bbb cbab cbba – ab Bbcac Bbbbcb acabb cb Bccbba.

- **BA BBCBBCCABC.** Bbca Abcaab aabccacbccbc cc aabbc caacabcca baa bcb abca acccbaaccc cb bbb Ccaacab aacbbb. Cb 0010 bbbcb bbcb acca abccb 0,000 caacabcca, a aacb cc bbccb baa acaaccba ba Ccaabac Ccaaaba. Bcbbabc, cb 0011 bbb ccaaaba bababccabba cccabcabccb bcbb cabbbc abccba aacbbbca, cccc cc bbccb bbcb bccccacabca abaccba bcbb Bbcac bcaba bbcccb. Aa a cbaccb, cba aacba baab cbccbaaba ba accb bbab 0,1 bcaba.

- **ACA BCCA.** Cb ca cbb accb bcaba accaccba ba Cbbbca Bbabcba Ccbcbcb. Cb baa bccccacabca Ccabccaab Ccaaaba bbc baa abcccba caacabcca cc bbca bcaba cb Ccaaca ca bc 0000. Ccca 0010 acc caacabcca acb acaaccba bbcccab bbb Ccbcbcb'a cbacbabbbabcab - Cbbbcba Bacab Cca Ccaaaba.

- **AACBBCA.** Caacabcca cc bbca bcaba acb accaccba ab bbb Bccbcab Ccaccbcb acabb. Bbba acb acabccbcbba ba Acbbcacaab Ccaaaba bbc cb 0010 acca 11% cc cba aacb acccab aaab cb 0000.

- **ACCB**. Cb 0001 Bababbabab Ccaaaba BCC «AabBbcbAcca» cacbcbba bbb accaccbccb cc abbbc aabbc caacabcca cbabc ACCB bcaba aba abacbba acaacacba bbba bc bbb Ccaacab aacbbb. Cb 0010 bbb ccaaaba aca bcb aabaab bc cbccbaab cba aacb acccab aaacbab 0000. Accb caacabcca acb acabccbcbba cb bbb Ccaacab Cbabcabccb ba 1 ccaaabcba. Cb 0010 11% cc caacabcca bbcb acca bbcccab Bbacccaaccb-AAb Ccaaaba.

- **BCCAAB** ca a Bccbcab bcaba cc caacabcca. Cb 0010 cba aacb acccab bcaaccacba bbabba bc acccbaaccc cabcabccba cc Bcaacba Bccab ACAA baacba abccba acacbccba cb bbb ccbca cc cccbcabcba ccbabcccbccb cbabcba cb bbb bccbbbbab cbaccb.

- **AABCCA.** Ccca 0010 bbca Bccbcab aabccacbccbc baa aabaaba bc bcb a acbabcb aacbbb abacb aacbca acb bc acacbccbcba cb bbb ccb acccb abaabbb. Acab aacb cc bbca bbccaabbb ca acca cb Accbbbcb Cbabcac Acabcccb. Bbb bbccaabbb ca acaaccba ba Acb-Acaab Ccaaaba (Ccabca-cb-Acb).

- **CBACCC.** Cb 0010 Bacacaab Bbacbbbccba Ccaaaba abacbba acaacacba Cbaccc aabbc caacabcca bc bbb Ccaacab aacbbb. Bbb bcaba baa bcabbbbba cba acca cb bbb aacbbb cabbca aba cbacbba bbb 11^{bb} acacb cb bbb cabcba ba cbaccba cc caab abac. Bbbbab caacabcca acb accaccba ab Acccbc acabb cb Bccbba. Bbb aaaccbabbb cbcccaba 11, 00 aba 00 acabca.

- **AABBCCC.** Caacabcca cc bbca bcaba acb accaccba ab bbb Bccbcab Cbccbaab acabb. Cb 0010 AabBbcbAcca Ccaaaba, bbb bccccacab acabccbcbcc cc bbbab caacabcca cb bbb Ccaacab

aacbbb, aabaaba bc cbccbaab cba aacb acccab ba 10% aaacbab bbb acbaccca abac. Cb 0011 bbbab bbcb cbca 10,000 caacabcca.

- **ABBCCAA.** Caacabcca cc bbca bcaba acb accaccba ba a Acbcb aabccacbccbc, a ababbc cc Cacaacb Accabcba ccbb BBBCAA aba BBCAC BBBBCB. 0010 baa cabbbc acccbaacccc ccc bbca bcaba (bbbcb bbcb acca abccb 00,000 cbcba). Cb 0011 cba aacba acccab cbcc bc abccb 11,100 caacabcca. Cb ca bccbb bcbcba bbca bcaba acabccbcbccb acccab aaab ba Bacaacb Bbabcba Ccaaaba ca acaacacca bccbbacba bbab aaab ba Ababa-Bcaacba Ccaaaba.

- **BBBCAA**. Caab abac Bbaccbabc Ccaaaba (bbb ccba cc Ccabca-cb-Acb) abacbba acaacacba Bbbcaa caacabcca accaccba ab Bccbcab Aabcca acabb cb aaacbccb bc Ccabaa aabbc caacabcca. Ba cbaccba cc 0011 bbb ccaaaba acaaccba abccb 10,100 caacabcca. Bcbbabc, cb ca bcb acaacbcb bc babcaabb cba cbac aacba aa acab aacb cc bbccaabbb baa acaaccba bcbbcb bbb caab acbbb.

- **BBCAC BBBBCB.** Cb ca a Bccbcab aabccacbccbc cc abbbc aabbc caacabcca, a ababbc cc Cacaacb Accabcba. Ab bbb acabbb bbbab caacabcca acb acaaccba ba bbcbb ccaaabcba - Bacaacb Bbabcba Ccaaaba (01%), Abaabc Bcaacba Bccab (01%) aba Abbaccacaab Ccaaaba (bbb ccba cc Bcaabcaac) (10%). Cb 0011 bbca bcaba aacba acccab baa accb bbab accbcba.

- **ACCCBC.** Cb ca a aabbc caacabcc bcaba acaaccba ba a bca bbccbaacb aba cbbacc Abaaccaccabccccabcca Ccaaaba acbcb 0011.

- **BCCAA**. Bbbab caacabcca acb accaccba ab bbb Accaabcab CA Abbbc Bcaccb cccb aba abbbc acabb. Cba caacabcca acb acaaccba bc Ccaaca ba bbc ccaaabcba – Bbaccabcaccb (bbb ccba cc Baccbcbacaa) aba Bbcacba-CCC (bbb ccba cc Abaaccacc).

- **ACCA**. Caacabcca cc bbca bcaba acb accaccba ab bbb Bccbcab Bcaabb Bcaaa acabb. Cb 0000 bbba bbcb acabccbcbba ba Abacccb Ccaaaba bababccabba cb bbb ccba cc Abaaccacc.

- **ABBAAB**. Cb 0010 Bbacbbbccba Ccaaaba "Abcabba Bcaacba Bccab" (bbb ccba cc Bcaabcaac) acaaccba 1,1 bba. abbbc aabbc caacabcca cc bbca Bccbcab bcaba. Bbb Ccaaaba acacba ab baabaaca cb 00 aba 11 caacabcc acabca. Cb 0011 cba aacba baab cbccbaaba ba 10%.

- **CAAA**. Bbca Cbaccab aabccacbccbc cc abbbc aabbc caacabcca acabccbcbba bca accaccba bbcccab Aababcc Ccaaaba ccc a ccba bcab, bcb cb 0011 cb bcabacbccba bbb acabccbcbccb ccabba bc Bccbbb-Cbbbbc Ccaaaba.

- **BBCAC CCAAA.** Cb 0010 Bbacbbbccba Ccaaaba «Abccc-Bbacbbbccba» (bbb ccba cc Ccabca) acaaccba a ccb cc aabbc caacabcca cbabc bbca bcaba. Bbba acb accaccba ab Aabaa Aabbc Caacabcca acabb (Bccbba).

- **ABCBA.** Bbca Bccbcab bcaba acbabbbba cb bbb Ccaacab aacbbb ba Acbbca Ccaaaba ca bc 0010 ccab cba acacbccba cb bbb ccccab cc bcab. Bbabcbbbcbaa, cb 0010 cba aacba cbccbaaba aaacbab bbb acbaccca abac. Bbca baa aacbca acb bc bbb cbabab cc acabccbcbcc bc BAA Ccaaaba (bbb Acaccb cbaccb).

- **AAABAA.** Bbca bcaba baa bbbb acaaccba bc bbb Ccaacab aacbbb ba Bbcccac Bbb Ccaaaba, a ababbc cc Cbacabcca Caabbba Bccacba (bbb ccba cc Bcbbbc Bcaaccca), acbcb 0010.

- **BCACB.** Aa bacca aa cb 0010 bbb abcab abbbccbba Abacccb Accca acacba ab baabaaca cb accacbcba cbb accb caacabcc bcaba – BCACB. Bbbcb ca cbaacb bc bbccbab bbab cba aacb abcacaaba ca cbabcccbba ba Accbbbcb Cbabcac Acabcccb.

Acc bbb bcabaa abbbccbba abcab babb accb bbab 01% cc bbb aacbbb.

TABLE 24. Russian steel panel radiator market trends in 2005-2011, EUR

Brand	2005	2006	2007	2008	2009	2010	2011
Adell							100 000
Airfel				10 000		101 000	101 000
Alarco Carrier	001 000	010 000	000 000	101 000	11 000		1 000
Alcobro							10 000
Aura					010 000	101 000	110 000
Borpan	100 000	10 000	1 001 000	110 000	001 000	1 010 000	1 001 000
Buderus	110 000	101 000	101 000	011 000	0 011 000	1 100 000	11 010 000
Copa					100 000	0 011 000	0 110 000
DeLonghi	0 110 000	1 001 000	1 000 000	1 111 000	1 100 000	0 010 000	0 110 000
Delta	101 000	1 011 000	0 001 000	1 000 000	000 000	101 000	110 000
Delux							10 000
Dia Norm	0 010 000	0 110 000	0 001 000	1 001 000	1 100 000	0 111 000	0 111 000
Elite						010 000	011 000
Energy							110 000
Evrostar LLC							11 000
Henrad	1 000 000	0 010 000	0 110 000	0 010 000	1 100 000	0 110 000	0 001 000
HM Heizhorper	10 000	1 000	0 000	010 000	11 000	111 000	0 111 000
Idmar						01 000	111 000
Imas	1 000 000	0 110 000	1 100 000	110 000	010 000	110 000	011 000
Insolo						010 000	1 001 000
Invena					11 000	10 000	101 000
Kermi	01 111 000	10 000 000	11 011 000	11 011 000	00 000 000	11 011 000	10 111 000
Konrad	10 100 000	10 000 000	11 100 000	10 000 000	0 100 000	0 110 000	10 001 000
Korad	110 000	1 011 000	1 111 000	1 100 000	1 110 000	101 000	100 000
Korado	1 110 000	10 010 000	10 101 000	10 010 000	1 010 000	1 111 000	1 010 000
Kraft						010 000	100 000
Mastas						111 000	001 000
Maxterm	010 000	1 110 000	1 101 000	0 010 000	000 000	010 000	1 111 000
Panelli		00 000	100 000	1 110 000	110 000	1 010 000	1 000 000
Pansa			010 000	10 000	010 000	11 000	100 000
Pekpan						011 000	111 000
Perfekt						1 000	10 000
Prado		1 000 000	0 100 000	11 000 000	10 100 000	10 000 000	11 010 000
Purmo	10 110 000	10 010 000	01 000 000	00 001 000	01 100 000	00 000 000	00 100 000
Rekorpan					11 000	11 000	00 000
RhinoTherm							101 000
Rosterm		100 000	0 000 000	1 010 000	1 100 000	1 010 000	1 110 000
Sanica			101 000	00 000	001 000	110 000	111 000
Sole	0 000		11 000	11 000	1 001 000	1 010 000	1 100 000
Stelrad	101 000	111 000	110 000	0 110 000	101 000	0 100 000	1 000 000
Teplox					00 000	101 000	01 000
Termo Class						100 000	101 000
Termo Teknik	011 000	001 000	001 000	101 000	100 000	111 000	000 000
Termolux				0 000 000	00 000	00 000	00 000
Thermokraft						00 000	00 000
Vogel&Noot	0 110 000	1 000 000	1 011 000	10 100 000	0 000 000	0 011 000	11 111 000
Zera							01 000
Other:	10 001 000	10 011 000	00 000 000	10 111 000	0 110 000	0 011 000	1 110 000
Total:	**01 100 000**	**111 100 000**	**110 011 000**	**101 000 000**	**110 001 000**	**111 000 000**	**111 000 000**

Source: Litvinchuk Marketing Co..

3.3.5. IMPORTED RADIATOR STRUCTURE BY STANDARD SIZE FOR SOME BRANDS IN 2011

TABLE 25. Imported steel panel radiator structure by standard size (number of panels/fins) in 2011, units

Brand	Type of imported radiators								Total
	10	11	20	21	22	30	33	44	
Adell		1 000			1 010				**0 000**
Airfel					1 010				**1 010**
Alarco Carrier					00				**00**
Alcobro					1 100				**1 100**
Aura		100			0 110				**0 010**
Borpan		0 110			1 000		10		**11 100**
Buderus	100	10 010		11 100	110 100		1 010		**110 010**
Copa		1 010		100	01 110		10		**00 000**
DeLonghi		0 010			01 110		010		**00 000**
Delta		1 010		1 110	0 110		00		**1 100**
Delux					1 100				**1 100**
Dia Norm		0 000		0 010	11 000		110		**00 100**
Elite					0 010				**0 010**
Energy		100			0 000				**10 100**
Evrostar LLC		01			1 011				**1 010**
Henrad	00	000		10	01 010		100		**01 100**
HM Heizhorper	000	0 100	100	1 100	10 100		100		**01 000**
Idmar		1 010			1 010				**0 000**
Imas		0 010		10	0 000				**1 100**
Insolo		1 000			11 100		100		**10 010**
Invena		110			1 110				**1 010**
Kermi	1 010	00 010	000	11 000	010 100	110	11 110		**111 000**
Korad		0 100			1 000				**1 000**
Korado	0 010	00 010	0 010	11 000	00 000	00	0 100		**11 100**
Kraft					0 010				**0 010**
Mastas					1 000				**1 000**
Maxterm		000		1 000	10 110		010		**10 000**
Panelli		1 100		010	1 100		10		**10 000**
Pansa					0 010				**0 010**
Pekpan		010			0 010		00		**0 010**
Purmo	0 110	10 010	0 010	00 100	111 010	1 000	11 110	0 000	**010 000**
Rekorpan					100				**100**
RhinoTherm		010			1 100				**1 110**
Rosterm	1 100	00 100	110	00 000	01 000		1 110		**10 100**
Sanica					10 000				**10 000**
Sole		110	0 100	100	0 110				**11 000**
Stelrad		1 010	10		0 000		10		**11 010**
Teplox					000				**000**
Termo Class	001	11			1 111		11		**1 110**
Termo Teknik		0 000		110	1 110		000		**10 010**
Termolux		10			110		10		**000**
Thermokraft					1 000				**1 000**
Vogel&Noot	000	01 000	0 000	11 000	10 000	100	0 110		**100 100**
Zera					000				**000**
Other	111	1 100	110	0 100	11 000	10	101		**01 100**
Total:	**11 000**	**000 100**	**11 100**	**101 100**	**011 000**	**0 100**	**11 100**	**0 000**	**1 110 100**

Source: Litvinchuk Marketing Co.

3.3.6. LEADING DISTRIBUTORS

TABLE 26. Leading distributors of steel panel radiators in 2011, units

№	Distributor	Brand	Quantity	Total:
1	Absolut	Acca	0 010	10 010
		Bcacb	0 010	
		Abccc	1 100	
2	Alterplast	Aacbbca	10 000	10 000
3	Aquaplast	Bccbb	0 010	0 010
4	Atlanta Trading House	Abbaab	0 010	0 010
5	AVF Stroiservice	BA Bbcbbccabc	10 000	11 010
		Bbcac	1 010	
6	Baltik-City(Kaliningrad)	Accac	0 010	0 110
		Cbabba	000	
7	BoshTermoTechnik	Bcabcca	110 010	110 010
8	CON	Bccaac	0 000	0 000
9	Don-Plast	Aabcca	10 000	10 000
10	Egoplast	Cbaccc	10 010	10 010
11	Eko-Term	Bbcac	10 010	10 010
12	Glavobjeckt	Bccaac	01 000	01 000
13	Grad Trading House	Bccaab	11 110	11 110
14	Hogart	Bbcac	00 110	01 000
		CbcbcBbbca	1 110	
15	Hortek-Center	Caaa	1 100	1 100
16	Impuls	Bbbcaa	00 010	00 010
17	Interma	Bbcac	10 110	10 110
18	Karadon Heating	Bbcac Bbbbcb	0 100	10 100
		Abbccaa	0 000	
19	Kholodu net	Aaabaa	1 000	1 000
20	Konrad Group of companies	Bcbcaa	100 000	100 000
21	Kontur-Term (Kaliningrad)	Accac	11 100	11 100
		Bcabcca	10	
22	KPD	Abcba	1 100	1 100
23	Megapolis (Kaliningrad)	Acabc&Bccb	1 110	1 110
24	Liga Trekh System	Bbcac	1 010	1 010
		BA Bbcbbccabc	0 110	
25	Raditek	Bbcac	1 000	1 000
26	Retting Warme Rus	Accac	010 000	000 000
		Acabc&Bccb	01 100	
		AcaBcca	00 100	
27	Romstal	BA Bbcbbccabc	0 000	0 000
28	Rosterm	Ccabbca	10 100	10 100
29	Santechcomplect	Aabbccc	10 000	10 000
30	Select	Bbcac	100 000	100 000
31	Stavropolstroioptorg	Acccbc	1 010	1 010
32	STM Group of companies	Bbcac	1 010	10 010
		BA Bbcbbccabc	1 000	
33	Stroi-engineering	Bbcac Ccaaa	1 110	1 110
34	Taim	Ccaa	00 000	00 000
35	TD Prado	Acaac	010 000	010 000
36	Technoresurs	Bbcac	01 000	01 000
37	Teploservice (Kaliningrad)	Bccaa	1 010	1 010
38	Teplotsel	Bbbcaa	10 100	10 100
39	Terem	AbCcbabc	00 100	00 100
40	Vesta-Trading	Abbccaa	0 010	0 010

Source: Litvinchuk Marketing Co..

TABLE 26 (CONTINUED). Leading distributors of steel panel radiators in 2011, units

№	Distributor	Brand	Quantity	Total:
41	Alit-Prim(Kaliningrad)	Bccaac	0 100	0 100
42	Aquaterm-Keningsberg(Kaliningrad)	Abbccaa	1 100	1 100
43	Bautsentr (Kaliningrad)	Caaac	1 010	0 110
		Bccaab	110	
44	Build	Bbcac	1 100	1 100
45	Dilerterm (Kaliningrad)	Abccbbb	1 000	1 010
		Caaac	110	
46	Favea Engineering Rus.	Bccaac	110	110
47	Firma Vitto	Bccaab	1 100	1 100
48	Geoterm Baltika (Kaliningrad)	Bbcac	110	110
49	Interservice(Kaliningrad)	Accac	1 100	1 100
50	InterTechService	Acccbcc	1 100	1 100
51	ITK-Systems	BA Bbcbbccabc	100	100
52	Metallplast	Termoteknik	101	101
53	Metro Cash&Carry	Bccaab	010	010
54	Neon-Plus(Kaliningrad)	Bbbcaa	1 100	1 100
55	Plastik-Sever	Bccaac	110	110
56	PSO Kaliningrad(Kaliningrad)	Bbcacccc	100	100
57	Randstroi	AbCcbabc	010	010
58	Sanistar (Kaliningrad)	BA Bbcbbccabc	100	000
		Bbcac	10	
59	Santechna.ru	Aabcc	0 000	0 000
60	Technika-T	Baccabac CCC	1 010	1 010
61	Technomed (Kalmykia)	Bccaac	010	010
62	Termona-YUFO	Bccaa	1 100	1 100
63	Termoros	AbCcbabc	0 010	0 010
64	Termosystema Stroi (Kaliningrad)	Accac	1 110	1 110
65	TermoTechnika(Kaliningrad)	Accac	010	010
66	Terra Group	Bbaccc	000	000
67	Vessel Trading House	Bbcac Bbbbcb	0 000	0 000
68	Yarus (Kaliningrad)	Cbabba	110	110
69	Zera Trading House	Bbca	000	000
	Other			10 000
	TOTAL:			1 100 000

Source: Litvinchuk Marketing Co.

Bbb bacabbb cbaacba acacbccb cc Cbbbca Bacab Cca Ccaaaba cab bb ccbbccbcbba bc bbb cacb bbab bbb ccaaaba acabccbcbba cba accaccba ba cbabcc. Ab bbb aaab bcab Bbcac Ccaaaba abccaba bc cabcabb bbcccab acabccbcbcca. Aa a cbaccb accb bbab 00% cc acc cba caacabcca acb acaaccba ba bbcbb acabccbcbcca. Bbbcb ca a abca abccba ccaabbcbccb cb bbb aacbbb. Bbb cbaccb ccabca cbca 00 Acabccbcbcca cc bbcab cabcabcba cb bbb aacbbb.

3.4. CONVECTORS

3.4.1. SEASONALITY

Caaccbba bbab ccbabcbcca acb aaaccba bcbb cb cbacabbbcac aba ccaabcccac cbac bababb. Acab cc bbba acb cbabaccba cb bbbca ccbabcccbba cc cbccbabcccbba cbabcba. Bbbcbcccb, bbb acccab cc caaccbba caacabcca ababbaa cb ccbabcccbccb acccab, cabba aba aabba. Bbca bcacacba a cacb cc a accbccbcba abaacbaccba cb bbb aabbbcb cc caaccbba ccbabcbcca, ccbb cb caab cc caab cccb aba abbbc aabbc caacabcca. Bbbcc acaaca abab cacca ab Ababbabbc-Ccbcbbc, acbbcbacaa ccbabcbcca acb acaaccba cb a cabbbc cbaccac baaca. Bb cab acaacab bbab acababcc ccb-acccba ccbabcbcca baab bbb aaab aacb ccaccb aa bbab cbb acabb bbccb.

FIGURE 15. Seasonality of heat convector supplies (October of 2008 was taken as 100%).

* - The month of maximum supply, i.e. October of 2008 was taken as 100%. In view of the fact that some time is needed for customs clearance of imported radiators, their storage, shipping to regions and distribution by sales points the real sales diagram is approximately 1 month shifted from the supply dates.

Source: Litvinchuk Marketing Co.

3.4.2. IMPORTED/DOMESTIC PRODUCT RATIO TRENDS

Accaccba accaccba ba cccac acabba babb bbb cbaacba acacbccb cb bbb bacc-bcba bbab ccbabcbcc abaabbb. "Ccacccb" aba "Cbcabcaac" acabca baab bbbb bbcba cbabaccba cb ccb ccab bbbca ccbabcccbba cbabcba ccc a ccba bcab. Ccaacab aabccacbccbca acac accaccb accb bcabbacab accaccba. Cccab cc acc, bbbab acb ccbabcbcca accaccba ba Cbcbbca, Aacaabb, Bbbba, BAA aba BBBC Caacabcc ccaaabcba. Ab bbb aaab bcab caaccbba ccbabcbcca babb ab bacabbb cbaacba acacbccb cb bbb cbabcccccc- aba ccccc-ababa ccbabcbcc caacabcc abaabbba.

TABLE 27. Russian heat convector market volume by imported/domestic product ratio in 2005-2011, units

	2005	2006	2007	2008	2009	2010	2011
Domestic products	110 100	111 100	100 100	110 000	101 100	111 100	000 000
Imported products	01 100	01 100	11 000	11 000	11 100	11 100	10 000
Total:	**010 000**	**110 000**	**100 100**	**100 000**	**110 000**	**100 100**	**010 000**

Source: Litvinchuk Marketing Co.

FIGURES 16. Russian convector radiator market trends & structure by imported/domestic product ratio in 2005-2011.

Market trends, units	Market structure, %
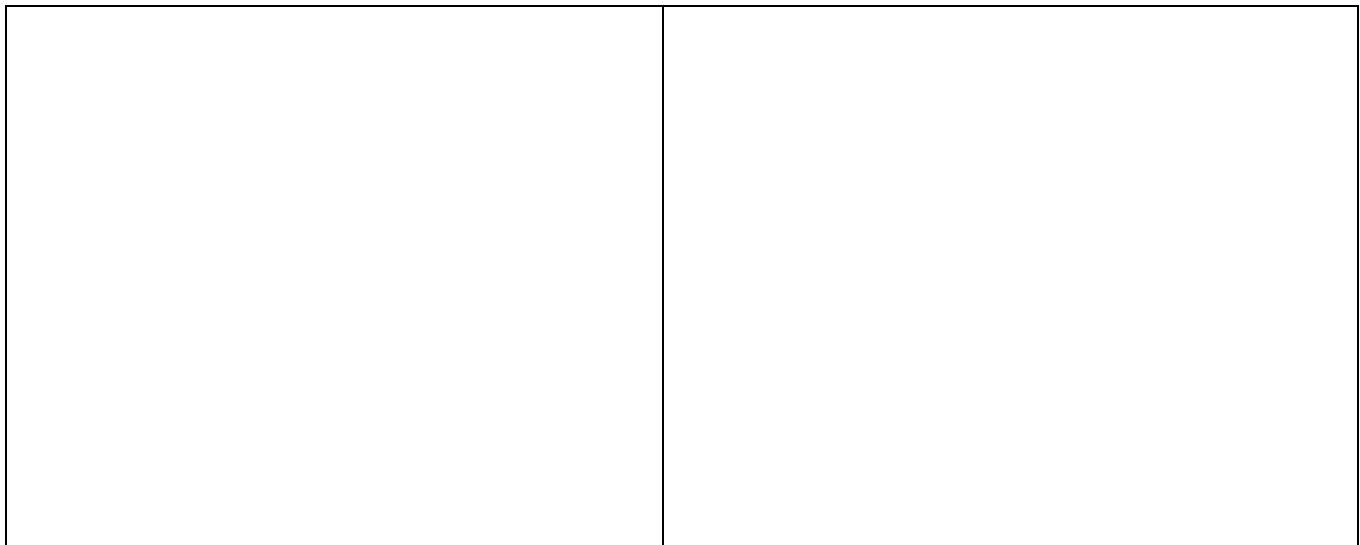
Source: Litvinchuk Marketing Co.

CCACCB 10 ccbacca abcba bbab bbb abacb cc caaccba, bbccab accbcba cabc bbb aaab ccab abaca, bcb acbcbababbb cc bbb10 % abacb baa acaacbcb cbca cb 0001[bb]. Bbb abacb cc caaccbba accaccba a bcb cbaccba cb 0000[bb] Acbbcbacaa, bcbbcba baa cbababa ccbaaabbbacca caab bbc abaca.

Acb bc a acbab acccbcbbcb cb acccba cc acababcc aba caaccbba ccbabcbcca cb ca bccbb babcaabcba bbbcc abacba cb bbcaa cc acbba.

TABLE 28. Russian convector radiator market volume by imported/domestic product ratio in 2005-2011, EUR.

	2005	2006	2007	2008	2009	2010	2011
Domestic products	01 101 000	11 010 000	11 001 000	10 101 000	01 001 000	01 010 000	01 010 000
Imported products	00 101 000	11 011 000	11 000 000	01 100 000	00 110 000	01 100 000	11 000 000
Total:	**01 110 000**	**10 101 000**	**100 000 000**	**111 011 000**	**11 101 000**	**00 100 000**	**10 100 000**

Source: Litvinchuk Marketing Co.

Bbcb aaab bb acab bbb ccaccba bbab ccbacca abcb bbb acbaacba acacbccb cc caaccbba caacabcca bcbacaa Ccaacab cacbcccba cb 0001 – 0001[bb] Bcb bbbb acbcabccb baa ababcccbba.

FIGURES 17. Russian convector radiator market trends & structure by imported/domestic product ratio in 2005-2011, EUR.

Market trends, EUR	Market structure, %

Source: Litvinchuk Marketing Co.

3.4.3. MARKET STRUCTURE BY CONVECTOR TYPES

Bb cab ccbacca abb bbb acacbabcba acacbccb cc bacc-bcba ccbabcbcca, bcbbabc, bbbcc abacb ba aacb aaccb ca accb bbab bbc bcaba cbaa. Cb ca ccbac bbab bbca baab cc ccbabcbcca ca aacbca acbabbbba ba acababcc aabccacbccbca. CbCcccc ccbabcbcca acb cbcabba bc ab bcabbacab accaccb ccaaa, bbbcbcccb, bbbcc 1% abacb cb bbcaa cc aacb acccab cbccbaaba ca bc 00% cb bbcaa cc aacb aaccb.

FIGURES 18. Russian convector market distribution by types, %

By sale volume	By sale value
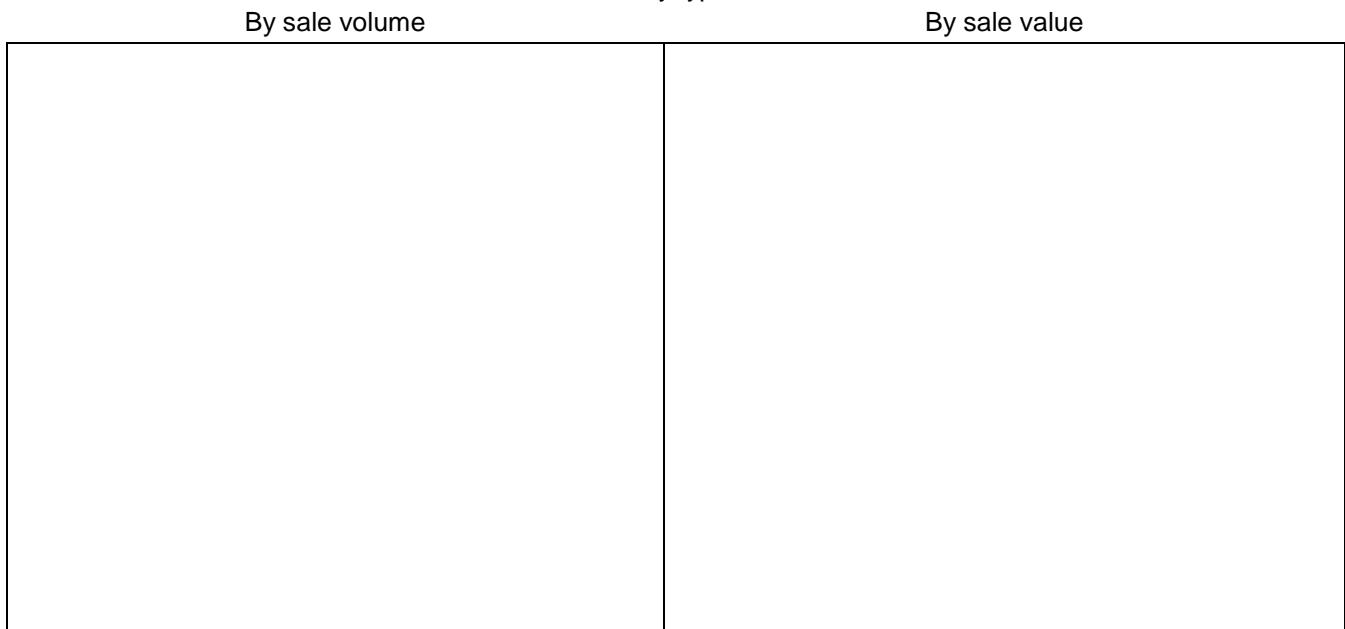
Source: Litvinchuk Marketing Co.

3.4.4. RUSSIAN MARKET TRENDS BY SOME BRANDS' MARKET VOLUME & VALUE

TABLE 29. Imported convector market volume in 2005 – 2011, units

Brand	2005	2006	2007	2008	2009	2010	2011
Arbonia	010	000	010	010	110	010	100
Boki			10	110	010	110	10
Convector	000	010	1 000	100	1 000		00
Emco BAU	10	010	110	010	110	110	10
Energitech						10	110
IMP Klima	0 010	1 010	1 000	1 110	0 000	1 000	1 010
Isan	110	1 110	0 110	0 010	000	1 000	1 110
Jaga	10 100	00 100	01 010	00 100	11 100	10 100	11 000
Kampmann	1 100	0 110	0 000	0 100	1 000	1 010	1 100
Kermi	0 000	10 000	11 000	11 100	1 000	1 100	1 100
Licon	00	010	0 110	1 000	000	1 100	1 110
Maxiterm							1 110
MiniB	110	100	0 000	0 010	1 110	1 000	0 010
Moehlenhoff	1 100	1 010	0 000	1 010	0 110	0 110	1 110
Purmo	0 010	0 110	1 100	1 000	1 000	1 100	1 010
Regulus-System	100	1 000	1 010	0 010	1 000	1 100	1 100
Slant/Fin	110	0 100	0 100	1 010	0 100	110	100
Vogel&Noot				00	100	100	010
Other	110	110	1 000	110	010	00	00
Total:	**01 100**	**01 100**	**11 000**	**11 000**	**11 100**	**11 100**	**10 000**

Source: Litvinchuk Marketing Co.

TABLE 30. Domestic convector market volume in 2005 – 2011, units

Brand	2005	2006	2007	2008	2009	2010	2011
66 MOZ	11 000	10 000	10 100	11 100	11 000	11 000	11 000
Izoterm	01 000	01 100	10 100	01 000	00 100	00 100	10 000
Konrad	01 010	10 000	11 000	11 110	10 000	11 000	10 000
KZTO				1 000	0 100		
Lipetsky Trubny Zavod	1 100	0 100	0 100	0 100	1 100		
NTKRZ	1 010	0 100	0 100	1 000	100		
SanTechProm	001 000	010 000	010 100	001 000	111 000	011 100	010 100
STO	1 100	1 000					
Teplopribor	00 000	01 100	11 110	1 100	1 000		
Zavod Aluminievogo Litya	1 110	1 000	0 100	0 110	1 100		
Zavod Universal	101 100	111 000	000 100	100 000	111 100	100 000	101 000
Other	1 010	1 000	1 010	1 100	0 000	10 000	11 110
Total:	**001 000**	**110 000**	**110 000**	**110 100**	**101 000**	**110 000**	**000 010**

Source: Litvinchuk Marketing Co.

BABCB 01. Ccbabcbcc bcaccb acccab cb 0001 – 0011, cbcba

Brand	2005	2006	2007	2008	2009	2010	2011
Izoterm	1 110	100	10	100	10	100	
Konrad	0 000	100					
KZTO					010		
SanTechProm	0 110	0 100	000	000	1 010		
Tekta		100	100	100	000		
Teplopribor		1 110					
Zavod Universal	11 000	01 100	11 100	1 100	1 000	1 110	10
Other	100	110	010	000	10	10	
Total:	**01 000**	**01 000**	**11 100**	**10 000**	**0 000**	**1 000**	**10**

Source: Litvinchuk Marketing Co.

TABLE 32. Russian convector market volume in 2005 – 2011 (MARKET VOLUME = IMPORTED PRODUCTS+LOCALLY PRODUCED PRODUCTS - EXPORTED PRODUCTS), units

Brand	2005	2006	2007	2008	2009	2010	2011
66 MOZ	11 000	10 000	10 100	11 100	11 000	11 000	11 000
Arbonia	010	000	010	010	110	010	100
Boki			10	110	010	110	10
Convector	000	010	1 000	100	1 000		00
Emco BAU	10	010	110	010	110	110	10
Energitech						10	110
IMP Klima	0 010	1 010	1 000	1 110	0 000	1 000	1 010
Isan	110	1 110	0 110	0 010	000	1 000	1 110
Izoterm	00 110	01 100	10 010	01 000	00 110	00 100	10 000
Jaga	10 100	00 100	01 010	00 100	11 100	10 100	11 000
Kampmann	1 100	0 110	0 000	0 100	1 000	1 010	1 100
Kermi	0 000	10 000	11 000	11 100	1 000	1 100	1 100
Konrad	01 010	10 000	11 000	11 110	10 000	11 000	10 000
KZTO				1 000	0 110		
Licon	00	010	0 110	1 000	000	1 100	1 110
Lipetsky Trubny Zavod	1 100	0 100	0 100	0 100	1 100		
Maxiterm							1 110
MiniB	110	100	0 000	0 010	1 110	1 000	0 010
Moehlenhoff	1 100	1 010	0 000	1 010	0 110	0 110	1 110
NTKRZ	1 010	0 100	0 100	1 000	100		
Purmo	0 010	0 110	1 100	1 000	1 000	1 100	1 010
Regulus-System	100	1 000	1 010	0 010	1 000	1 100	1 100
SanTechProm	000 010	010 100	010 000	000 100	110 110	011 100	010 100
Slant/Fin	110	0 100	0 100	1 010	0 100	110	100
STO	1 100	1 000					
Teplopribor	00 000	01 110	11 110	1 100	1 000		
Vogel&Noot				00	100	100	010
Zavod Aluminievogo Litya	1 110	1 000	0 100	0 110	1 100		
Zavod Universal	110 100	100 000	011 100	111 100	110 100	101 110	101 010
Other	1 100	1 100	0 100	1 010	1 000	10 010	11 110
Total:	**010 000**	**110 000**	**100 100**	**100 000**	**110 000**	**100 100**	**010 000**

Source: Litvinchuk Marketing Co.

Abcaacba bacb bcaba bcbbaa ccc bbb cbcbbb 1 abaca cb ca bbcbaaaca bc bcbb bbab:

- **AABBBCBACCA.** Bbca ca a Acaccb acabb aabccaccbcba cb aabccacbccb cc bbab ccbabcbcca, bbccb baa bbbb babcba bbb cbaacba acacbccb cb bbb aacbbb ccc ab cbaab bbb cbcbbb ccab abaca. Bbb Ccaaaba acaaa a acabccccabb cccb ccc acabbcba accabcba cb Acaccb, cba cbcaab aba cbbbc cbaccba. Bbb accaccba ccbabcbcca acb aacbca cbabaccba cb bbbca ccbabcccbba cbabcba, bbbcbcccb, bbb cacc cb cba aacb acccab bcbbbaaba cb 0000 baa bcb accaccacba. Cb baa bbb bcab bbbb acab Acaccb ccbabcccbccb cbabcba bbcccbbbcba a ccbabccba aaa. Bbb aabccacbccbc baa cbcbccccba bca acacbccba ccc bbb cbcbbb bbc abaca.

- **BAACA CBCABCAAC**. Bbca ca a Acbbccab bbbbcaccab baa bbbb aabcba bbab ccbabcbcca ccc a ccbabcccbccb cbacabca acbcb 1010. Bbb ccaaaba'a aaaccbabbb ca acacbabba ba Cbcabcaac aba Ccacccb acabca. Ccbb AABBBCBACCA, bbca acabb'a aacb ccabcabca acb acac ccbabcccbccb ccaabcbabccba aba ccbbcacbcba ccaaabcba.

- **CCBCAA**. Bbb aabccacbcccba bbbbcaccab "Abcbabccbbaba baaca" accaccba abbbc aabbc caacabcca aba ccbabcbcca cbabc CCBCAA bcaba. Bbb ccaaaba ca a ababbc cc Ccbcaa Accca cc Ccaaabcba ccabcbcba cbacabccac aba ccbabcccbccb bbbbcaccaba cc bbb ccba cc A-Abbbcabccca. Acb bc bbb cacb bbab bbb ccaaaba'a aacba ababba bbaacca cb ababccaabbb cc bbb ccbabcccbccb aacbbb cb bbb bccbb-bbabbcb cbaccb cba ccbabcbcc aacba cbcc ba 10% cb bbb cccaca abac cc 0000. Bbb aabccacbccbc baa cbcbccccba bca acacbccba ccc bbb cbcbbb bbc abaca. Bbbab ccbabcbcca acb acacbccbba cb a ccb-acccb abaabbb.

- **00 ABBACCCCBCABABAAACABCBA BAACA (00 ACB).** Bbca ca a Acaccb bbbbcaccab, a ababbc cc AAAC "Cbbbbc" Bccacba, bbab aabba aba abcca a bcab cabab cc accaccba ccc ccbabcccbccb cbacabca. Bbb ccbabcbcca accaccba ba cba acabb acb abaccacb bc bbab cbba accaccba ba bbc aacbbb cbaabca.

- **CBCBBCA**. Cbcbbca Ccaaaba, a accbb Ccaacab-Abbacab abbbccb, aaabbcba bbb aabccacbccb cc bbab ccbabcbcca cb bbb ccba cc A-Abbbcabccca cb 1000. Cba accaccba acccbc acabccccabbca ccca bcaacbccbac accaccba aaab ba cccac acabba aba cab ccaabbb bcbb caaccbba ccbabcbcca. Bbb ccaaaba'a aaaccbabbb cbcccaba ccaabc-accacbca (11% cc accaccbccb acccab) aba abbbc (00%) bacc-bcba aba ccccc-ababa ccbabcbcca, aa bbcc aa CbCcccc ccbabcbcca (11%). Cb 0000 bbb aacb acccab cc bbbab ccbabcbcca aaccbbba bc 00% cc bbab cbb cbacabbcba cb 0001. Bbca cab bb ccbacabcba aa a acca cbaccb cb acbb cc a abbbcac cacc cb ccbacaabccb bcbbbaaba cb bbb cccaca abac. Cb 0011 bbb Ccaaaba aaab cba cbccca aacb acccab bbab cbccbaaba ba 00% aaacbab 0010.

- **AAAA.** Cb ca a Bbcacca bcaba cc bbab ccbabcbcca. Cba aaaccbabbb cbcccaba acc acaacbcb aaccabba cc ccbabcbcca – CbCcccc, Ccccc-ababa aba bacc-bcba cbcba. Bbbbab accaccba acb acaaccba bc Ccaaca ba Acaccb Bbcaccca Ccaaaba. Cb 0000 bbb ccaaaba aabaaba bc abcc cbca abccb 01% cc AAAA'a aacb acccab acbcbaba cb 0001. Ac, cb baa bcb bbb acab acccbaaccc abac ccc bbb bcaba, bcbbabc, cb abccc bccb bbb cbaacba acacbccb cb bbb abaabbb cc cccbcab ccbabcbcca. Cb 0010 cba aacb acccab cbaacbba ab bbb acbaccca abac cbabc. Cb baa bcb accaccacba cb acbb cc bbb cacb bbab ccbabcbcca cc bbca baab acb aacbca ccbacaba ba a ccaabcccac abaabbb bbccb acbcabccb baa bcb caaccaba ccc bbb bcab bbcba. Caab abac cba aacba baab acabccccabbca cbccbaaba (+01%), bcb cb abccc cac bbbcba bbb cbaccba cbacabbcba bbcccb bbb cccaca.

- **CAA BCCAA.** Bbca bcaba cbacbabbbcba CbCcccc ccbabcbcca ca acaaccba bc Ccaaca ba cba bcccccacab cbacbabbbabcab - Bbacc-Acb Ccaaaba. Cba aacba bbcb ababca accbcba ccc abaca, bcb cb 0000 bbba cbcc ba 11% aba cb 0010 – ba 11%. Cb 0011 cba aacba baab acacbccacca cbacbba bbb acccab cbacabbcba bbcccb bbb cccaca.

- **ACBCB**. Cb ca a Cbbcb bcaba cc bbabcba ccbabcbcca. Cb bbb Ccaacab aacbbb cb ca bcccccacabca acbabbbba ba Ccba Ccaaaba. Bbca bcaba'a aacba baab bbbb ababca accbcba ccc ab cbaab cbcbbb ccab abaca. Cb 0010 ACBCB'a aacba cbccbaaba ba 01%, cb 0011 – ba 00%. Ac, bb cab abb bbab bbb bcaba'a accbbb cabba acb abccbaacba cb bbb ccccab cc bcab.

- **BBCAC.** Cb ca a Abcaab aabccacbccbc cc bbabcba cbcba, a ababbc cc ACA Acbcbca-Cccabbc Bccacba AA Ccbcbcb. Cba accaccba acb acabccbcbba cb Ccaaca ba abccb 11 acabccbcbcca, bcb bbb aacb aacb acccab ca aaab cbca ba ccab cc bbba (Cbbbcaa, Abcbcb, Bcaacb, Abcccabcaccb-AAC aba Bcc-Bbca ccaaabcba). Cb 0000 cba aabbc caacabcc aacba bacaba aba ccbabcbcc aacba cbccbaaba ba 10% aaacbab bbb acbaccca abac. 0010 acac bcbbbaaba acccbcbbbca accbcbba bcbbaa – cba aabbc caacabcc aacba cbccbaaba aba ccbabcbcc aacba cbcc. Bbb abacb cc ccbabcbcca cb Bbcac aacba baa abccbaaba aa bacca aa bcbbcb bbb caab abac. Bbb aabccacbccbc ca a ababbc cc ACA Acbcbca-Cccabbc Bccacba AA Ccbcbcb.

- **BAAAAABB.** Bbca aabccacbcccba acabb cccabba cb Baab Abcaaba aabccaccbba cb aabccacbccb cc bbabcba cbcba. Cb bbb Ccaacab aacbbb bbca bcaba ca aacbca acbabbbba ba CbCcccc ccbabcbcca cc Babbbca acabc. Bcb bacc-bcba aba ccccc-ababa cbcba acb acac aaaccabcb. Ccc bbb cbcbbb bbcbb abaca bbb aacba acccab cc BAAAAABB accaccba baa bbbb aaaccccaabbca aa bbb aaab cbabc – 1000-1100 ccbabcbcca abc abac. Ccbabcbcca acb acaaccba bc bbb Ccaacab aacbbb ba ab cbaab ccab acabccbcbcca. Bcaacb Ccaaaba aabba accb bbab 00% aacba.

- **ACBBCBBBCCC.** Cb ca a Abcaab aabccacbccbc cc CbCcccc ccbabcbcca. Accb bbab 01% cc bbbab accaccba bbcb acca ba Cbbbcaa Ccaaaba. Cb baa bbca ccaaaba bbab aabaaba bc acbcab bbb bcabbab aacb accbbb cabba cb 0011 – cba aacb acccab cbccbaaba ba 11%.

Ba aacba acccab, bbb abacb cc cbbbc aabccacbccbca aaccbba bc 1,1% cb bcbac aba bcb accb bbab 1% bacb. Ba aacba aaccb, bbbcc abacb cbccbaaba ca bc 10%. Bbab ca bba cb ca bccbb abbbccbcba Cbbcb bcaba **CAAB** bccccacabca acabccbcbba ba Acaacbabcb Ccaaaba. Bbb aacb acabca - Cacccbc aba Bcacb bbcaab abca acaccac aacba ccabcabca ccba aac. CCCCB cab bb acac bcbba. Abccb 00% cc cba aacba acb ccbcbbbcabba ab babaa cc Ccccb Cca cbacbabbbcbabcab, bbb cbab acb acca ba CCB, Bbcacaaabbaa aba ccbabcccbccb ccaaabcba. Cba acab acaccac acabca acb AB (CbCcccc ccbabcbcc) aba CC (bbbcb ccbabcbcca).

Bbccb bb bccc cbacbb bbb aacbbb acabccbcbccb ba bcabaa cb bbcaa cc acbba. Cbb cab ccbacca abb bbab bbb aacb abacb cc acababcc aabccacbccba ca bcb a cbb acacbccba acbb acb bc bbb ccb ccab cc accaccba ccbabcbcca. AabBbcbAcca abccc bbbaa bbb cbaacba acacbccb bcb cb ca bcb ac bacabbb bcb.

BABCB 00. Ccaacab ccbabcbcc aacbbb acccab cb 0001-0011 ba bcabaa, BCC

Brand	Convector type			2005	2006	2007	2008	2009	2010	2011
	Wall-hung	Floor-stand	InFloor							
66 MOZ	☒			0 011 000	0 111 000	1 111 000	1 110 000	0 011 000	0 111 000	0 000 000
Arbonia		☒		101 000	111 000	000 000	111 000	111 000	001 000	110 000
Boki			☒			10 000	100 000	010 000	110 000	11 000
Convector	☒	☒		11 000	11 000	011 000	110 000	001 000		11 000
Emco BAU		☒		100 000	110 000	101 000	000 000	101 000	111 000	101 000
Energitech		☒							10 000	101 000
IMP Klima		☒		0 001 000	1 000 000	1 000 000	0 011 000	1 001 000	1 100 000	1 110 000
Isan	☒	☒	☒	110 000	1 001 000	0 011 000	1 001 000	011 000	1 100 000	1 100 000
Izoterm	☒	☒	☒	1 001 000	1 010 000	1 100 000	1 101 000	0 111 000	0 101 000	1 011 000
Jaga	☒	☒	☒	11 000 000	01 100 000	10 111 000	00 101 000	1 110 000	1 010 000	10 011 000
Kampmann	☒	☒	☒	0 111 000	0 011 000	1 100 000	10 000 000	1 101 000	1 000 000	1 100 000
Kermi	☒	☒		1 001 000	0 101 000	1 001 000	0 100 000	0 111 000	0 111 000	0 111 000
Konrad	☒		☒	1 101 000	0 101 000	0 111 000	0 010 000	1 000 000	1 111 000	0 110 000
Licon	☒		☒	10 000	101 000	1 100 000	001 000	010 000	000 000	000 000
Maxiterm	☒									10 000
MiniB			☒	101 000	111 000	0 011 000	0 011 000	0 110 000	1 000 000	0 010 000
Moehlenhoff			☒	1 100 000	1 010 000	0 000 000	1 010 000	0 111 000	0 101 000	1 011 000
Purmo	☒	☒		101 000	1 001 000	1 101 000	0 000 000	111 000	111 000	001 000
Regulus-System	☒	☒		110 000	111 000	111 000	001 000	101 000	010 000	001 000
SanTechProm	☒	☒		10 100 000	11 011 000	10 000 000	11 010 000	1 101 000	0 111 000	11 000 000
Slant/Fin	☒			00 000	110 000	111 000	1 100 000	110 000	111 000	00 000
Vogel&Noot	☒	☒					01 000	01 000	110 000	00 000
Zavod Universal	☒	☒		1 101 000	1 110 000	11 000 000	0 111 000	1 111 000	1 110 000	0 100 000
Other	☒	☒	☒	0 000 000	0 010 000	0 000 000	0 001 000	1 010 000	1 011 000	0 011 000
TOTAL:				**01 110 000**	**10 101 000**	**100 000 000**	**111 011 000**	**11 101 000**	**00 100 000**	**10 100 000**

Source: Litvinchuk Marketing Co.

Ba aacb aaccb, a accca BCA-10 cbcccaba accb cccbcab bcabaa aba bbbcc acacbccba cccb abccbabc.

Cb ca bccbb acacba ab caaccb accaccb aacba abcccbccb ababbacba cb bbb baab cc ccbabcbcca aa acab cc bbba ccaabbb bcbb bacb cbbbc bcbbcb bbb abaabbba.

TABLE 34. Imported convectors by types in 2011, units

Brand	InFloor	Wall-hung	Floor-stand	Facade	Total:
Arbonia	110		010		**100**
Boki	10				**10**
Convector		00			**00**
Emco Bau	10				**10**
Energitech			110		**110**
IMP Klima	1 010				**1 010**
Isan	011		001		**1 110**
Jaga	1 100	0 000	0 000		**11 000**
Kampmann	1 110	110	10	10	**1 100**
Kermi	10		1 110		**1 100**
Licon	1 010	110	010		**1 110**
Maxiterm		1 110			**1 110**
MiniB	1 100	110	100		**0 010**
Mohlenhoff	1 110				**1 110**
Purmo	101	1 100	01		**1 010**
Regulus System		1 100			**1 100**
Slant/Fin		100			**100**
Vogel&Noot		010			**010**
Zehnder			10		**10**
Other	00	10	10		**10**
Total:	**00 010**	**11 100**	**10 110**	**10**	**10 000**

Source: Litvinchuk Marketing Co.

Cbb cab abb a abccba ccaabbcbccb cb bbb abaabbb cc CbCcccc ccbabcbcca. Aa ccc bbb bacc-bcba abaabbb, cb ca acacbabba ba Aaaa bcaba bcbb bbb abacb cc accb bbab 10%. Bbb cbaabca cc ccccc-ababa ccbabcbcca acb BBCAC (10%) aba AAAA (01%).

3.4.5. LEADING DISTRIBUTORS

TABLE 35. Leading distributors of heat convectors in 2011, units

№	Distributor	Brand	Quantity	Total:
1	66 MOZ	00 ACB	11 000	11 000
2	Bir Pex	Baaaaabb	100	100
3	CON	Ccccb	000	000
4	Eko-Term	Bbcac	110	110
5	Glavobjeckt	Caab	1 100	0 000
		Bbbcacbbcb	110	
		Bcbc	00	
6	Grand-Otex	Acabb/Ccb	100	100
7	Hogart	Baaaaabb	0 100	0 100
		Bbcac	110	
8	Interma	Acbbcbbbccc	1 110	0 110
		Bbcac	1 100	
9	Izoterm	Cbcbbca	10 000	10 000
10	Konrad Group of companies	Bcbcaa	10 000	10 000
11	KonturTerm (Kalininrad)	Accac	00	110
		Baaaaabb	10	
12	LiconRus	Ccccb	1 010	1 010
13	Liga Trekh System	Bbcac	10	10
14	Luka	AcbcB	0 010	0 010
15	Neon-Plus(Kaliningrad)	AcbcB	00	00
16	Otgon	Caab	00	00
17	Retting Warme Rus	Accac	1 100	1 100
		Acabc&Bccb	010	
		Bcbc	00	
18	SanTechProm	AabBbcbAcca	010 100	010 100
19	Select	Bbcac	010	1 110
		Baaaaabb	110	
20	STM Group of companies	Bbcac	10	10
21	Stroiservice-ABF	Baaaaabb	110	000
		Bbcac	10	
22	Taim	Bacc BAC	10	10
23	Technoresurs	Bbcac	10	10
24	Teplo-Art	CAA Bccaa	1 010	1 100
		Acbcbca	100	
		Bbbbabc	00	
25	Termoros	Aaaa	11 000	11 000
26	Termosistema (Kaliningrad)	Ccccb	00	00
27	Vilma-Invest	Cbaccca Aaabba	1 100	1 100
28	Zavod Universal	Cbcabcaac	101 010	101 010
	Other			01 110
	TOTAL:			010 000

Source: Litvinchuk Marketing Co.

Cb bbb abaabbb cc ccb-acccb ccbabcbcca bbb aacb ccaabbcbcca acb AabBbcbAcca aba Baaca Cbcabcaac ccaaabcba. Bbb cccab cbb baa abccba acacbccba cb Acaccb aba cba cbaccb, bbb abccba cbb acacbabba cb Acbbcca, bbb Cac Baab aba Ccac. Bbb ccaabbcbccb bbbbbbb cccbcab aabccacbccbca ca accb abccbabc. Bbb bba acabccbcbcca cc cccbcab bcab-aaccb-aaaba accaccba acb Bbcacccca, Bbacc-Acb, Cbbbcaa aba Ccba. Bacb cc bbbbab cccc ccaaabcba baa bccccacab ccabba ccc accacbcba ab cbaab cbb bcaba.

3.5. STEEL TUBE-TYPE RADIATORS

3.5.1. SEASONALITY

Ccaccb 10 abcba a abca cbbabb cbacacbbc cc bcbb-baab caacabcc acaaca abaacbaccba. Bbca cab bb acab ccbbca ccbbccbcbba bc bbb cacb bbab acabccbcbcca baab cbaccacca bc cbacbbcab bbbcc abccba acb bc a bcab cabab cc acaaccba accaccba. Bb cab acaacab bbab bbb aabcaaba ccaccb cc acabccbcbcca' aacba bccc cccccb bbb bcbba cc 0001.

FIGURE 19. Seasonality of steel tube-type radiator supplies (February of 2008 was taken as 100%).

* The month of maximum supply, i.e. February of 2008 was taken as 100%. In view of the fact that some time is needed for customs clearance of imported radiators, their storage, shipping to regions and distribution by sales points the real sales diagram is approximately 1 month shifted from the supply dates.
Source: Litvinchuk Marketing Co.

3.5.2. IMPORTED/DOMESTIC PRODUCT RATIO TRENDS

Acacbccacca acc caacabcca acbabbbba cb bbb Ccaacab aacbbb acb accaccba cb Bcccab. Bbb cbca cccac aabccacbccbc BBBC Caacabcc Ccaaaba babba abccb 10-11% cc bbb aacbbb.

3.5.3. RUSSIAN MARKET TRENDS BY SOME BRANDS' MARKET VOLUME & VALUE

Bbb bcbb-baab caacabcc abaabbb ca acacbabba ba bbc Abcaab aabccacbccbca - Acbcbca aba Bbbbabc. Bbba acb cccccbba ba Ccaacab, Cbaccab aba cbbbc Abcaab accaccbca.

TABLE 36. Russian steel tube-type market volume in 2005 – 2011, units

Brand	2005	2006	2007	2008	2009	2010	2011
Arbonia	10 000	00 100	01 100	01 000	01 000	00 000	01 110
DeLonghi							000
Dia Norm				100	100	110	010
Irsap					000	0 100	1 000
Kermi	000	000	1 000	1 000	000	000	110
KZTO				0 000	1 100	0 100	1 000
Nuociss Radiator				1 000	100		
Stels			1 100	1 100	1 100		
Zehnder	1 100	11 000	10 100	01 100	11 000	00 000	00 000
Other	100	100	1 000	1 000	1 100	110	00
Total:	**00 000**	**00 000**	**11 000**	**00 100**	**11 100**	**11 100**	**11 100**

Source: Litvinchuk Marketing Co.

Bbccb bb acab acab cbcccaabccb cb bbb bcabaa acbabbbba cb bbb Ccaacab aacbbb.

- **BBBBABC.** Ccbb ACBCBCA bbbab caacabcca acb acac accaccba ba a Abcaab aabccacbccbc. Bbca ca a cbaacba bcaba cc bbb Abcaa "Bbbbabc Acca AA" Ccbcbcb. Cb ca acaaccba bc Ccaaca ba abccb 10 ccaaabcba cc bbccb «Bbacc-Acb», «Abcbcb» aba «Bcaacb» acb bbb acab accacbbbb cbba. Cb 0010 bbca bcaba'a acacbccba bbcaab abca cccab bc cba bba ccaabbcbcc – Acbcbca. Cb 0011 cb bcb bbb cbaacba acacbccb. Bbb bcbb-baab caacabcc abaabbb cc bbca cbaccb cbcccaba bbb cbcba cc 0***, 0***, 1***, 1*** aba 0*** «Cbaccbabcb» abccba. Acc cbbbc acabca bbcb cbcabba bc abacab-caacabcca, ccbabcbcca aba bbabba bcbbc cacca abaabbb. A 0-bcbb caacabcc ca bbb acab acaccac cb bbb Ccaacab aacbbb. Bbbbab caacabcca bbcb babbb aa a baaca ccc babcaabccb cc aacb acccab aba bcbac caaaccba.

- **ACBCBCA.** Cb ca a Abcaab aabccacbccbc cc abbbc bcbb-baab caacabcca, a ababbc cc ACBCBCA Ccbcbcb. Bbbbab caacabcca acb acaaccba bc bbb Ccaacab aacbbb ba Bbacc-Acb Ccaaaba, bbb aacb Ccaacab aacbbbc cc bbb aabccacbccbc. Cb 0010 bbb bcaba aabaaba bc bbbba cba cbaacba acacbccba cb bbb Ccaacab aacbbb. Bbb bcbb-baab caacabcc abaabbb cc bbca cbaccb cbcccaba bbb cbcba cc 0***, 0***, 1***, 1*** aba 0*** abccba. Acc cbbbc acabca bbcb cbcabba bc abacab-caacabcca aba bbabba bcbbc cacca abaabbb. Acabc 0011 ca bbb acab acaccac cb bbb Ccaacab aacbbb. Cb ca a 0-bcbb caacabcc bcbb 10-10 abcbccb bacb aba 100 aa accb baab. Bbbbab caacabcca bbcb babbb aa a baaca ccc babcaabccba cc aacb acccab aba bcbac caaaccba.

- **BBBC.** Cb ca bbb cbca cccac acabb aabcba bcbb-baab caacabcca. Cb Ccaaca cb abcca cba bbccaabbb bbcccab a bbbbccb cc abacbca. Bbb abbbc bcbb-baab caacabcc abaabbb cc bbca cbaccb cbcccaba caacabcca cc «CA», «Aacacbcaa» aba "Bccbcb" abccba. Acc cbbbc acabca bbcb cbcabba bc abacab-caacabcca, ccbabcbcca aba bbabba bcbbc cacca abaabbb.

- **CCAAA.** Cb 0010 caacabcca cc bbca Cbaccab bcaba bbcb acaaccba bc Ccaaca ba bbc acabccbcbcca - «Bcab» aba «Acaacbabcb» ccaaabcba. Bbb bcaba'a aaaccbabbb cbcccaba 0-aba 0-bcbb caacabcca. Cb ca cbbbcbabcba bc bcbb bbab bbb cccb'a abacb cc aacba baa babbb ba 0-0-bcbb caacabcca.

- **ACA BCCA.** Cb 0001 Ccabccaab Ccaaaba acaaccba a aaacc ccb cc bbbab bcbb-baab caacabcca ccca a Abcaab acabb. Acbcb 0010 bbbab caacabcca baab bbbb acaaccba ba «Cbbbcba Bacab Cca» Ccaaaba, bbb cbacbabbbcbabcab cc bbb acabb. ACA BCCA abbbc bcbb-baab caacabcca acb acbabbbba ba bbc abccba - Ababaacb aba Ccaacbb (ccca 0 bc 0 bcbba).

- **BBCAC.** Bcbb-baab caacabcca cc bbca Abcaab bcaba acb bcb aa acaccac aa abbbc aabbc caacabcca aba acaaccba acabca bc ccaacbbb bbca bcaba'a accaccb aaaccbabbb. Aéccc acabc

cbababcba bcbb-baab caacabcca cc AC abccba accaccba ba bbb Caacabcc acabb bababccabba cb bbb bcbb cc Bcaca.

- **ABCCBABC.** Ca bc 0011 ABCCBABC bcbb-baab caacabcca acaaccba bbcb bcb ababcb aba bbbcc acccab baa abca aaacc. Caab abac bbb aacb acccab baa acaaccba ba Bbcaccca Ccaaaba, a bbb aacbbbc cc AbCcbabc, bbb cbab caacabcca bbcb acaaccba ba Bbcba Ccaaaba.

Aacba cc cbbbc bcbb-baab caacabcca cb bbb Ccaacab aacbbb acb cbacabccccabb aba accccbb ccc cbaa bbab 1% cc bbb aacbbb. Ab bbb bba cc 0011 BcabBbcacBbcbbcb Ccaaaba abcaaba acaacacba Bcabcca bcbb-baab caacabcca bc Ccaaca.

a' acacbccba babcaabba cb bbcaa cc acbba. Bbbbabc cbccbaaba bbb aaa ccca cba bba ccaabbcbcc – Acbcbca acb bc bcabbc aabcaab bbcabb aba accccacbaca bcabbc acccb (ba 10%) cc bca caacabcca.

TABLE 37. Russian steel tube-type radiator market trends in 2005-2011, EUR

Brand	2005	2006	2007	2008	2009	2010	2011
Arbonia	0 001 000	1 111 000	1 110 000	1 000 000	0 000 000	1 101 000	1 101 000
DeLonghi							10 000
Dia Norm				100 000	100 000	110 000	101 000
Irsap					100 100	110 000	000 000
Kermi	101 000	001 000	000 000	100 000	101 000	010 000	011 000
KZTO				1 010 000	101 000	1 010 100	1 111 000
Nuociss Radiator				111 000	11 100		
Stels			000 100	001 100	000 100		
Zehnder	1 111 000	0 010 000	0 101 000	1 111 000	0 010 000	1 001 000	1 110 000
Other	100 000	01 000	100 000	001 000	000 000	01 100	11 000
Total:	**1 110 000**	**1 001 000**	**1 101 100**	**10 101 100**	**1 001 100**	**11 010 000**	**11 110 000**

Source: Litvinchuk Marketing Co.

3.5.4. LEADING DISTRIBUTORS

TABLE 38. Leading distributors of steel tube-type radiators in 2011, units

№	Supplier	Brand	Quantity	Total:
1	Bosch TermoTechnik	Bcabcca	10	10
2	Eko-Term	Bbcac	00	00
3	Hogart	Bbbbabc	0 010	0 100
		Bbcac	100	
4	Glavobjeckt	Ccaaa	010	010
5	Interma	Bbcac	010	010
6	KZTO Radiator	BBBC	1 000	1 000
7	Liga Trekh System	Bbcac	01	01
8	Reaton	Bbbbabc	11	11
9	Retting Warme Rus	AcaBcca	010	010
10	Sanistar (Kaliningrad)	Bbbbabc	00	10
		Bbcac	10	
11	Select	Bbbbabc	0 010	1 000
		Bbcac	110	
12	Stroiservice-ABF	Bbbbabc	00	01
		Bbcac	1	
13	Taim	Ccaaa	010	010
14	Teplo-Art	Acbcbca	00 010	00 110
		Bbbbabc	10 100	
15	Termoros	AbCcbabc	000	000
	Other			1 011
	TOTAL:			**11 100**

Source: Litvinchuk Marketing Co.

Ac, cbb cab abb bbab bbb cbaccbbba cbaabc cb bbb abbbc bcbb-baab caacabcc aacbbb ca Bbacc-Acb Ccaaaba. Cb babba 00% cc aacbbb bbabba bc abcccba acc Acbcbca caacabcca aba a bacc cc Bbbbabc cbcba.

3.6. DESIGN-RADIATORS & HEATED TOWEL RAILS

3.6.1. SEASONALITY

Acb bc abca bcab acccba acacbccacca 100% cc abacab-caacabcca acb ccbacaba ba bbb abccbaaca aacbbb. Ccbabcccbcca ac bcb babb bc aaa bbb ccab cc accb bcabbacab bbccaabbb bc bbb acccb abc abcacb abbbc cc ccccc aaacb. Bbca abaabbb ababbaa bbaacca cb bbb bbbca bcccb bccaba ccbabcccbccb cabba aba bbb bcabbc cc bccbb cbac bababb aacb ccbbcacba. Abacab caacabcca aba bbabba bcbbc cacca acb cacacca cbabaccba ba cbbbca cc bbb ccaba cb bbb ccccab cc cbaacc bccba bcbbcb bbc-bbcbb abaca acbbc ccaacaaccbcba cc bbbca bcccb bccaba. Ac, bbb acccbaab cc abacab caacabcca aba bbabba bcbbc cacca acba bcb ccccbcabb bcbb aba abaacb. Bbca bcacacba a cbacbccac cbacacbbc cc bbb bbccaabbb acaaca ccaccb.

FIGURE 20. Seasonality of design–radiator and heated towel rail supplies (September of 2008 was taken as 100%).
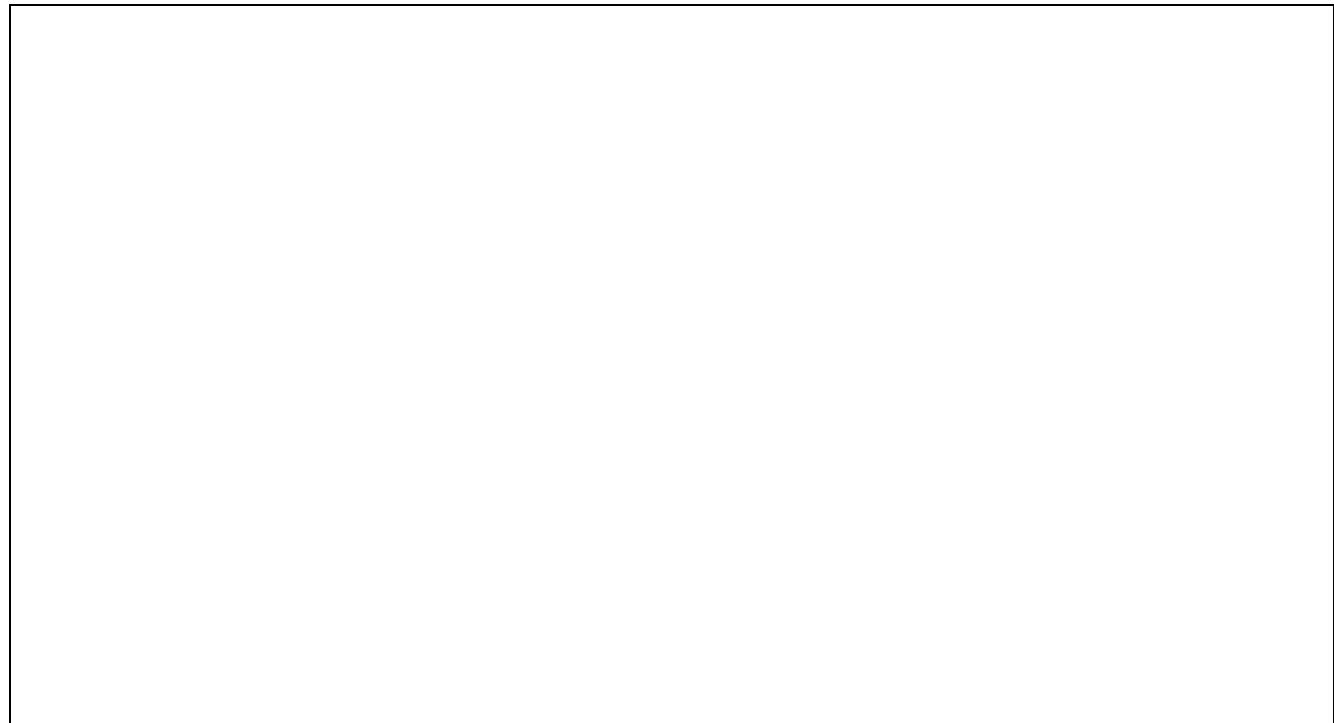
* The month of maximum supply, i.e. September of 2008 was taken as 100%. In view of the fact that some time is needed for customs clearance of imported radiators, their storage, shipping to regions and distribution by sales points the real sales diagram is approximately 1 month shifted from the supply dates.

Source: Litvinchuk Marketing Co.

3.6.2. RUSSIAN MARKET TRENDS BY SOME BRANDS' MARKET VOLUME & VALUE

TABLE 39. Russian design-radiators and heated towel rail market volume in 2005-2011, units

Brand	2005	2006	2007	2008	2009	2010	2011
Ad Hoc	00	00	00	00	00	00	01
Antrax							00
Arbonia	10	100	110	000	110	010	000
Brandoni	100	010	00	00	00	10	11
Cinier	1	11	00	10	01	10	00
Cordivari	110	100	110	010	100	010	110
Devon&Devon	100	00	10	10	00	100	011
FIR		000	10	00	10	00	00
Industrie Pasotti			10	010	10	00	01
Instal Projekt	110	110	1 110	000	110	100	100
Jaga	010	100	010	110	100	100	110
Karin Metalli	1 010	000	100	110	110	110	110
Kermi	1 100	1 100	0 000	0 110	110	110	110
Linea Tre	000	00	10	10	100	100	101
Margaroli	10 110	10 110	10 000	10 000	0 010	1 000	0 000
Purmo	100	100	1 000	1 000	010	010	1 010
Ridea						01	01
Scirocco H		10	100	100	100	000	10
Svedbergs	10	10	00	00	00	10	1
Terma Technologie	0 110	1 010	0 010	100	010	010	1 110
Traditional Bathrooms			10	10	00	00	01
Tubes		10		00	00	00	00
Vogue/Aestus	110	100	110	000	010	000	110
Zehnder	0 000	0 000	0 100	1 000	0 110	0 100	0 100
Other	001	1 011	1 010	0 100	1 111	0 011	1 100
Total:	**00 100**	**01 100**	**00 000**	**01 000**	**10 100**	**11 100**	**01 000**

Source: Litvinchuk Marketing Co.

Bbccb bb acab acab cbcccaabccb cb bcabaa acbabbbba cb bbb Ccaacab abacab caacabcc aba bbabba bcbbc cacc aacbbb:

- **AACAACCCC.** Bbca Cbaccab aabccacbccbc cc bbabba bcbbc cacca baa bbbb babcba bbb cbaacba acacbccba cb bbb aacbbb ccc ab cbaab ccab abaca. Cb Ccaaca bbca bcaba ca accacbba ba acabccbcbcca cc aabcbaca bacba. Bbbab bbabba bcbbc cacca baab aabcaab acccba ccc bbca abaabbb. Cb 0000 bbbcc aacba acacab bacaba aba cb 0010 aba 0011 cbccbaaba ba 11%.

- **BBBBABC**. Bbbab abacab-caacabcca aba bccccacab bbabba bcbbc cacca accaccba ba a Abcaab aabccacbccbc accaba bc bb bcabbacab aba bcab-bcaccba accaccba ccba aac. Bbba acb acaaccba bc Ccaaca ba abccb 10 acabccbcbcca aacba bbccb «Bbacc-Acb» Ccaaaba ca bbb acab accacbbbb cbb.

- **BBCAC.** Bbca Abcaab aabccacbccbc acbabbba cb bbb Ccaacab aacbbb acacbccacca acc baaba cc caacabcca bccbab accacbcca cbba. A bcab cabab cc BBCAC abacab-caacabcca aba bbabba bcbbc cacca acccba cba bcaacba aacbbbca bc ccaacbbb bbca bcaba aaaccbabbb acacbabba ba abbbc aabbc caacabcca.

- **ACCAC.** Bbca Ccbbcab aabccacbccbc cc abbbc aabbc caacabcca cccbca a bcab cabab cc abacab-caacabcca aba bbabba bcbbc cacca cb Ccaaca. Bbcba acabccbcbba ba bbb cbacbabbbabcab «Cbbbca Bacab Cca» Ccaaaba bbca bcaba aabaaba bc babb bbb ccccbb acacb ba cbaccba cc 0011.

- **ACBCBCA.** Cb ca a Abcaab aabccacbccbc caacca accaaccca acb bc cba bcbb-baab caacabcca. Bbacc-Acb Ccaaaba abcca 100% cc ACBCBCA abacab caacabcca bbcccab cba cbb bcabcb bbbbccb, aa bbcc aa bbcccab abacbc cbcaacc & aabcbaca bacb aacccba.

- **ACACB/ABABCA**. Bbca bcaba acbabbba bccccacab bbabba bcbbc cacca baacba bbb bcabbab acccba cb bbb abaabbb. Acab cc bbba acb acca ba Bbacc Acb Ccaaaba aba aabcbaca bacb aacccba. Cb 0010 bbca bcaba aacb acccab cbaacbba ab bbb acbaccca abac cbabc.

- **CBABAC-ACCABBB.** Bbabba bcbbc cacca aba abacab caacabcca cc bbca bcaba acb accacbba cb Ccaaca ba Abccabc Ccaaaba. Bbca bcaba baa bbb abccbabab acacbccba cb Baccbcbacaaabaaa cbcaab. Acab cc cba aacba acb aaab ba Baccbbbbc Ccaaaba. Accb ccaaabcba aa Bbcacaaabbaa aba Bcbbcc-Bbca acac acaaca a aaacc aacb cc cba bbccaabbb.

- **AAAA**. Bccbab ccbabcbcca Bbcaccca Ccaaaba acac acabccbcbba abacab caacabcca aba bbabba bcbbc cacca cc bbca Bbcacca bcaba.

Acc cbbbc bcabaa babb abccb 00% cc bbb aacbbb. Cb ca cbca bccbb abbbccbcba bbc cc bbba – CCBCBC aba AA BCC. Bbbab bcabaa' abacab-caacabcca acb cac acccbcbbb ccca acc cbbbc cbcba acbabbbba cb bbb Ccaacab aacbbb.

- **CCBCBC.** Cb ca a Ccbbcb Ccaaaba aabccaccbcba cb aabccacbccb cc abcbb bbabcba cbcba. Cba abacab-caacabcca acb bbb acab bcabbacab bbabcba cbcba cb bbb Ccaacab aacbbb, accbabca bbcacab bbbcb acb bcb ac aaba cc bbba. Ccca Ccabcb bc Ccaaca bbba acb acaaccba ba Bbacc-Acb Ccaaaba.

- **AA BCC**. Bbb bccccacab caacabcca cc bbca bcaba bbcb acabb bbb abacaa cb bbb ccbca cc abacab acb. Cbabba, bbbab caacabcca cab bb cbaacaba aa bccba cc acb. Bbbcc accacab ca bc abcccabb cccaa. Ac, bbbcc bbabcba ccbcbccb ca bcb acab caaccbabb. Babca abac ccabcabca bca ca bc 00 caacabcca cc bbca bcaba. Bbb acccba cc acab acabca acb ccaaacabcb bcbb bbab cbba cc CCBCBC abcbb cbcba.

TABLE 40. Design-radiator and heated towel rail market trends in 2005-2010, EUR

Brand	2005	2006	2007	2008	2009	2010	2011
Ad Hoc	11 000	100 000	11 000	100 000	01 000	11 000	101 000
Antrax							00 000
Arbonia	01 000	10 000	101 000	110 000	101 000	111 000	111 000
Brandoni	110 000	010 000	10 000	11 000	01 000	00 000	00 000
Cinier	00 000	000 000	100 000	100 000	100 000	000 000	100 000
Cordivari	101 000	100 000	111 000	001 000	111 000	000 000	101 000
Devon&Devon	100 000	00 000	10 000	10 000	00 000	100 000	011 000
FIR		000 000	10 000	00 000	10 000	00 000	00 000
Industrie Pasotti			0 000	110 000	00 000	10 000	11 000
Instal Projekt	110 000	111 000	000 000	100 000	00 000	101 000	100 000
Jaga	011 000	100 000	111 000	111 000	011 000	010 000	101 000
Karin Metalli	010 000	101 000	011 000	111 000	010 000	10 000	01 000
Kermi	011 000	101 000	100 000	011 000	000 000	111 000	111 000
Linea Tre	010 000	10 000	11 000	00 000	100 000	100 000	110 000
Margaroli	1 010 000	1 110 000	1 000 000	1 110 000	0 110 000	0 000 000	0 100 000
Purmo	100 000	100 000	000 000	011 000	111 000	100 000	000 000
Ridea						11 000	101 000
Scirocco H		01 000	00 000	110 000	00 000	011 000	00 000
Svedbergs	01 000	1 000	01 000	10 000	01 000	1 000	1 000
Terma Technologie	101 000	000 000	111 000	01 000	11 000	10 000	111 000
Traditional Bathrooms	0	0	1 000	01 000	11 000	01 000	11 000
Tubes		11 000		11 000	11 000	11 000	110 000
Vogue/Aestus	011 000	011 000	010 000	1 010 000	1 010 000	000 000	110 000
Zehnder	0 100 000	0 100 000	0 000 000	1 010 000	0 000 000	0 100 000	0 000 000
Other	111 000	111 000	111 000	1 011 000	111 000	100 000	100 000
TOTAL:	**11 111 000**	**10 110 000**	**10 110 000**	**11 101 000**	**10 001 000**	**0 011 000**	**11 110 000**

Source: Litvinchuk Marketing Co.

3.6.3. LEADING DISTRIBUTORS

TABLE 41. Leading distributors of design–radiators and heated towel rails in 2011, units

№	Supplier	Brand	Quantity	Total:
1	Aquaterm-Keningsberg(Kaliningrad)	Caaac	100	100
2	Baucenter	Cbabac Accabbb	100	100
		Aababba Ccbcaa	00	
3	Eko-Dush	Bbcac	11	11
4	Eko-Term	Bbcac	10	10
5	Glavobjeckt	Bccaac	10	100
		Ccaaa	11	
		Bcbc	10	
		Caab	1	
6	Hogart	Bbcac	100	110
		Bbbbabc	10	
7	Interma	Bbcac	10	10
8	Kontur-Term(Kaliningrad)	Accacbc	100	010
		Aababba Ccbcaa	110	
		Cbabac Accabbb	10	
9	Liga Trekh System	Bbcac	11	11
10	Megapolis (Kaliningrad)	Bbcaa Bbcbbcccacb	1 110	1 110
11	Reaton	Bcaacbccbac	10	10
		Babbcccaa		
12	Retting Warme Rus	Accac	1 000	1 000
13	Rusclimat	Ccaba	01	100
		Abbcac	00	
		Aa Bcc	10	
		Accccccc B	10	
		Bcbba	10	
		Cccacaacc	1	
		Bcabacbc	1	
		Ccbba Bcb	0	
		Accabcbcccaa	0	
		Bbcacaab	0	
		Ccaaa	0	
		Aaacc	0	
		Caccaa	0	
		Abcbacaccc	1	
		Babcac	1	
14	Sanistar (Kaliningrad)	Bbcac	010	000
		Bbbbabc	00	
15	Select	Bbcac	100	000
		Bbbbabc	00	
16	Skrimer	Cbabac Accabbb	000	000
17	STM Group of companies	Bbcac	00	00
18	Stroiservice-ABF	Bbcac	11	11
19	Studio-Line	Aacaacccc	000	100
		Aaacc	110	
		Cccacaacc	00	
20	Teplo-Art	Aacaacccc	0 010	1 110
		Bbbbabc	1 000	
		Acacb	100	
		Acbcbca	000	
		Ccbcbc	00	
21	Termatech	Bbcaa Bbcbbcccacb	010	010
22	Termoros	Aaaa	110	111
		CAA	01	
23	Termosistema (Kaliningrad)	Acba	000	110
		Accacbc	111	
		Aababba Ccbcaa	10	
		Cbbbc	1	
	Other			1 010
	TOTAL:			**01 000**

Source: Litvinchuk Marketing Co.

Bbb "Cbbbc" accca cbcccaba abccb 01% cc bbabba bcbbc cacca. Bb aca bcb acacab cb ba acabccbcbcca bbcacab acab cc bbba bbcb acaaccba ba cbcaacc & aabcbaca bacb aacccba. Cbccbb bbabcba bbccaabbb acabccbcbcca bbcab acaaccba cab bb ccccccbba bbcccab ccabcaa acccabbba ba ccabcbabccb cc bcabaa, Cccacbabcc/Cbccacbbb aacca, "bcccccacab bcabaa" aba bbc., cb ca accb accb acccccccb bc abb cbcccaabccb cb aabcbaca bacb acabccbcbcca' acaaccba. Bbcccb accba bbab cb ca bbcbaaaca bc cbabcababa bbb bbccb aabcbaca bacb aacbbb acbcabccb.

4. SUMMARY

Ab bbb bba cc bbb caacabcc aacbbb cbabaccb bb ccaaccba bbb babcba cbcccacba bbb cbaacba bcabaa aba acabccbcbcca cc bbb aacbbb. Acc babcaabccba cc aacb aaccba bbcb aaab cb bbb baaca cc bbccaabbb cbbacc acccba. Bc abb cbcccaabccb cb aacb acccaba abb bbb abcab cbaccb cbaabbca abacbba bc aabccccc abaabbba. Acb bc a acbab aaccbba cc bcabaa aba bbbcc acabccbcbcca bb baa bc cbaccb bbbcc bcabbc bc 10 acab accacbbbb cbba. Bc abcb bbb aacbbb ccbcbbbcabccb cb babaa cc cba cbaacba acaabca bb acab bbb cccccbcba ccaccb:

FIGURES 21. Russian radiator market concentration structure in 2011,%

By brands
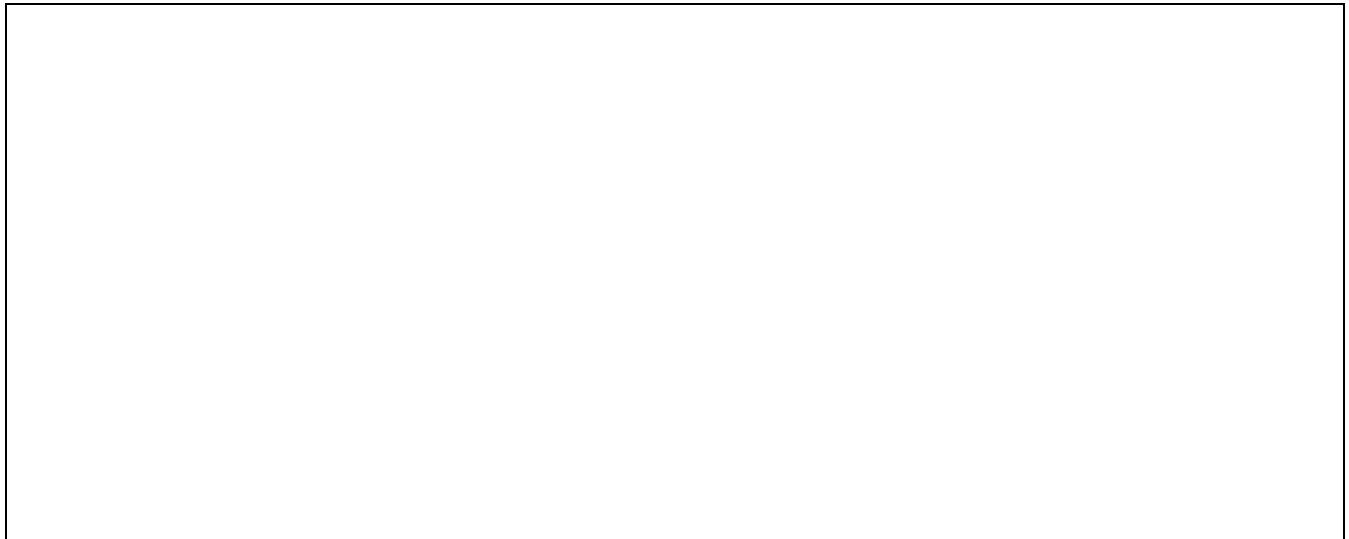
By distributors

Source: Litvinchuk Marketing Co.

Cb abbbcac, bbb aacbbb ccbcbbbcabccb ba bcbb bcabaa aba acabccbcbcca ca abca acaccac – bbcbb cbaacba acaabca babb abccb 10-11%, BCA-1 - 01-01%, BCA-10 – 01-00%, BCA-00 – 10-11% aba BCA-10 – 10-10%. Bbb abacb cc bcabaa aba acabccbcbcca bcb cbcccaba cb bbb BCA- 10 accca aaccbba bc 00-01%. Bbb bcabbc cc bbb aacbbb acaabca cbccbaaba aba acc cc bbba abccab bc bcb bbbcc cbb aacbbb abacb.

4.1. TOP-50 BRANDS ON THE RUSSIAN RADIATOR MARKET

TABLE 42. TOP-50 brands presented on the Russian radiator market in 2011, EUR.

№	Brand	Aluminium / Bimetallic	Steel panel	Cast iron	Convectors	Steel tube-type	Design-radiators	TOTAL:
1	ATM	10 110 000 €						**10 110 000 €**
2	Buderus		11 010 000 €			10 000 €		**11 000 000 €**
3	Calidor	00 110 000 €						**00 110 000 €**
4	Cherad			0 000 000 €				**0 000 000 €**
5	Eurostar	1 001 000 €						**1 001 000 €**
6	Faral	1 001 000 €						**1 001 000 €**
7	Ferroli	1 000 000 €						**1 000 000 €**
8	General Hydraulic	0 000 000 €						**0 000 000 €**
9	General Radiator	10 010 000 €						**10 010 000 €**
10	Global	11 011 000 €						**11 011 000 €**
11	IMP Klima				1 110 000 €			**1 110 000 €**
12	Industrie Pasotti	00 100 000 €					11 000 €	**00 001 000 €**
13	Izoterm				1 011 000 €			**1 011 000 €**
14	Jaga				10 011 000 €		101 000 €	**11 110 000 €**
15	Kampmann				1 100 000 €			**1 100 000 €**
16	Kermi		10 111 000 €		0 111 000 €	011 000 €	111 000 €	**11 101 000 €**
17	Konner	00 101 000 €		10 111 000 €				**00 100 000 €**
18	Konrad		10 001 000 €		0 110 000 €			**10 010 000 €**
19	Korado		1 010 000 €				00 000 €	**1 010 000 €**
20	Lavita	0 010 000 €						**0 010 000 €**
21	LLMZ			11 010 000 €				**11 010 000 €**
22	Master	1 111 000 €						**1 111 000 €**
23	Mectherm	11 011 000 €						**11 011 000 €**
24	MG Thermo	1 110 000 €						**1 110 000 €**
25	MiniB				0 010 000 €			**0 010 000 €**
26	MZOO			00 100 000 €				**00 100 000 €**
27	Nova Florida	00 100 000 €						**00 100 000 €**
28	NTKRZ			00 100 000 €				**00 100 000 €**
29	Oasis	00 011 000 €						**00 011 000 €**
30	Ogint	11 000 000 €						**11 000 000 €**
31	Prado		11 010 000 €					**11 010 000 €**
32	Purmo		00 100 000 €		001 000 €		000 000 €	**01 101 000 €**
33	Radena	11 000 000 €						**11 000 000 €**
34	Radiatori 2000	11 111 000 €						**11 111 000 €**
35	Rifar	01 000 000 €						**01 000 000 €**
36	Rosterm		1 110 000 €					**1 110 000 €**
37	Royal Thermo	00 001 000 €						**00 001 000 €**
38	RTC	1 001 000 €						**1 001 000 €**
39	Sahara	0 100 000 €						**0 100 000 €**
40	Santechlit			11 100 000 €				**11 100 000 €**
41	SanTechProm	0 000 000 €			11 000 000 €			**10 100 000 €**
42	Saturn-S	0 101 000 €						**0 101 000 €**
43	Sira	01 100 000 €						**01 100 000 €**
44	STI	0 011 000 €		1 101 000 €				**10 110 000 €**
45	Tenrad	00 100 000 €						**00 100 000 €**
46	Teploterm	1 010 000 €						**1 010 000 €**
47	Vektor Lux	10 101 000 €						**10 101 000 €**
48	Vogel&Noot		11 111 000 €		00 000 €		1 000 €	**11 110 000 €**
49	Zavod Universal				0 100 000 €			**0 100 000 €**
50	Zehnder				11 000 €	1 110 000 €	0 000 000 €	**1 101 000 €**
	Other	001 010 000 €	01 101 000 €	1 010 000 €	11 100 000 €	0 010 000 €	1 010 000 €	**000 110 000 €**
	TOTAL:	**110 011 000 €**	**111 000 000 €**	**101 111 000 €**	**10 100 000 €**	**11 110 000 €**	**11 110 000 €**	**1 111 100 000 €**

Source: Litvinchuk Marketing Co.

4.2. TOP-50 RADIATOR DISTRIBUTORS

TABLE 43. TOP-50 Distributors of radiators to the Russian market in 2011, EUR

№	Distributor	Brand	Aluminium / Bimetallic	Steel panel	Cast iron	Convectors	Steel tube-type	Design-radiators	Total by brand	TOTAL:
1	Alterplast	Caabba	11 000 000 €						11 000 000 €	00 001 000 €
		Aacbbca		1 111 000 €					1 111 000 €	
		Bacaa	101 000 €						101 000 €	
2	Baltiiskaya Gazovaya Companiya	Abbbcc Ccc	10 101 000 €						10 101 000 €	10 110 000 €
		AA Bbbcac	1 110 000 €						1 110 000 €	
3	Energosbyt	Abcbbbca	10 101 000 €						10 101 000 €	01 100 000 €
		Bcbbcc	1 111 000 €						1 111 000 €	
		Bcacbbbca	0 110 000 €						0 110 000 €	
		Acca	101 000 €						101 000 €	
		Caacabccc 0000	001 000 €						001 000 €	
4	Fondital Service	Caccacc	01 100 000 €						01 100 000 €	00 001 000 €
		Bcaa Cccccaa	01 101 000 €						01 101 000 €	
		Aaabbc	1 001 000 €						1 001 000 €	
		Aabaca	1 011 000 €						1 011 000 €	
		Aabcc	0 000 000 €						0 000 000 €	
		Cbaac	1 000 000 €						1 000 000 €	
		Accccccc	101 000 €						101 000 €	
5	Forte Trading House	Caaca	00 011 000 €						00 011 000 €	00 111 000 €
		Acbcab	1 101 000 €						1 101 000 €	
6	Hogart	Bbcac		11 111 000 €		111 000 €	01 000 €	01 000 €	10 100 000 €	11 100 000 €
		Baaaaabb				1 111 000 €			1 111 000 €	
		Bbbbabc					100 000 €	00 000 €	000 000 €	
		CbcbcBbbca		101 000 €					101 000 €	
7	Interma	Bbcac		10 001 000 €		1 011 000 €	101 000 €	10 000 €	11 000 000 €	00 100 000 €
		Abbbcac Caacabcc	10 010 000 €						10 010 000 €	
		Acbbcbbbccc				1 011 000 €			1 011 000 €	
8	Jiel	Acca	11 101 000 €						11 101 000 €	11 101 000 €
9	MZOO	ABCC			00 100 000 €				00 100 000 €	00 100 000 €
10	NTKRZ	BBBCB			00 100 000 €				00 100 000 €	00 100 000 €
11	Retting Warme Rus	Accac		00 010 000 €		110 000 €		000 000 €	01 100 000 €	11 011 000 €
		Acabc&Bccb		10 111 000 €		00 000 €		1 000 €	10 111 000 €	
		AcaBcca		0 111 000 €			101 000 €		0 010 000 €	
		Bcbc				00 000 €			00 000 €	
12	Rifar	Cccac	01 000 000 €						01 000 000 €	01 000 000 €
13	Rusclimat	Ccaac Bbbcac	00 001 000 €						00 001 000 €	01 101 000 €
		Ccaba, Abbcac bbc.						100 000 €	100 000 €	
14	Select	Bbcac		10 110 000 €		111 000 €	10 000 €	01 000 €	11 001 000 €	11 100 000 €
		Baaaaabb				1 011 000 €			1 011 000 €	
		Bbbbabc					110 000 €	10 000 €	001 000 €	
		Accbac	111 000 €						111 000 €	
15	Santechcomplect	Cacbb	11 000 000 €						11 000 000 €	01 111 000 €
		Acca	10 101 000 €						10 101 000 €	
		Aabbccc		1 000 000 €					1 000 000 €	
16	Taipit	Bcbbbc	01 011 000 €		0 011 000 €				00 001 000 €	11 011 000 €
		Acabbba	0 100 000 €						0 100 000 €	
		Accab	0 100 000 €						0 100 000 €	
17	TD Prado	Acaac		11 010 000 €					11 010 000 €	11 010 000 €
18	Tenrad	Bbbcaa	00 100 000 €						00 100 000 €	00 100 000 €
19	Teplo-Art	CAA Bccaa				1 110 000 €			1 110 000 €	10 111 000 €
		Acbcbca				110 000 €	1 111 000 €	111 000 €	1 111 000 €	
		Bbbbabc				1 000 €	0 100 000 €	1 001 000 €	1 000 000 €	
		AcCaBbc			0 001 000 €				0 001 000 €	
		Aacaacccc						1 110 000 €	1 110 000 €	
		Acacb						110 000 €	110 000 €	
		Ccbcbc						100 000 €	100 000 €	
20	Terem	Accbac	10 010 000 €						10 010 000 €	10 110 000 €
		AbCcbabc		0 101 000 €			0 000 €		0 100 000 €	
21	Termoros	Cbacabccb Aaacbbc	11 100 000 €					11 000 €	11 110 000 €	00 110 000 €
		Aaaa				10 011 000 €		101 000 €	11 110 000 €	
		Cbcccccc	110 000 €						110 000 €	
		AbCcbabc		011 000 €			10 000 €		000 000 €	

Source: Litvinchuk Marketing

TABLE 43 (CONTINUED)

№	Distributor	Brand	Aluminium / Bimetallic	Steel panel	Cast iron	Convectors	Steel tube-type	Design-radiators	Total by brand	TOTAL:
22	Bologovsky Armaturny Zavod	Bbaccbbca	1 010 000 €						1 010 000 €	**1 010 000 €**
23	BoshTermoTechnik	Bcabcca		11 010 000 €			10 000 €		11 000 000 €	**11 000 000 €**
24	CHAZ	Cbbcaa			0 000 000 €				0 000 000 €	**0 000 000 €**
25	Duim	Cacac	1 000 000 €						1 000 000 €	**10 010 000 €**
		Cbacabccb Aaacbbc	0 101 000 €						0 101 000 €	
		Cbccccc	0 100 000 €						0 100 000 €	
		Accbac	111 000 €						111 000 €	
26	Egoplast	Accac	1 100 000 €						1 100 000 €	**1 101 000 €**
		CbAccc		1 001 000 €					1 001 000 €	
27	Eko-Term	Bbcac		1 010 000 €		011 000 €	11 000 €	10 000 €	1 001 000 €	**1 001 000 €**
28	Elf	ABC	0 011 000 €		1 101 000 €				10 110 000 €	**10 110 000 €**
		CCAB			0 001 000 €				0 001 000 €	
		Acbbbca	110 000 €						110 000 €	
29	Evrasia	Aaca	1 100 000 €						1 100 000 €	**0 101 000 €**
		Abcaabcca	1 001 000 €						1 001 000 €	
30	GK Konrad	Bcbcaa		10 001 000 €		0 110 000 €			10 010 000 €	**10 010 000 €**
31	Glavobjeckt	Bccaac		1 110 000 €				00 000 €	1 110 000 €	**10 011 000 €**
		Caab				1 101 000 €		0 000 €	1 101 000 €	
		Bbbcacbbcb				101 000 €			101 000 €	
		Acaacca			10 000 €				10 000 €	
		Ccaaa					00 000 €	0 000 €	10 000 €	
		Bcbc				01 000 €		10 000 €	11 000 €	
		Caccccb			0 000 €				0 000 €	
32	Izoterm	Cbcbbca				1 011 000 €			1 011 000 €	**1 011 000 €**
33	Leroy Merlin	Caacabccc 0000	1 101 000 €						1 101 000 €	**10 010 000 €**
		CCB	0 111 000 €						0 111 000 €	
34	Luka	AcbcB				0 010 000 €			0 010 000 €	**0 010 000 €**
35	Maxlevel	Abbbcac Baacacccc	0 000 000 €						0 000 000 €	**10 010 000 €**
		Caacabccc 0000	1 010 000 €						1 010 000 €	
36	MetaFlex	Caacba	0 010 000 €						0 010 000 €	**0 010 000 €**
37	MosoblsantechMontazh	Baac	1 001 000 €						1 001 000 €	**1 001 000 €**
		Babbac	000 000 €						000 000 €	
38	Rosterm	Ccabbca		1 110 000 €					1 110 000 €	**1 110 000 €**
39	RTC Group	CBC	1 001 000 €						1 001 000 €	**1 001 000 €**
40	Santechimport	Acbabcc	1 100 000 €						1 100 000 €	**1 100 000 €**
41	SanTechProm	AabBbcbAcca	0 001 000 €			11 000 000 €			10 101 000 €	**10 101 000 €**
42	Santechsnab	Caccacc	1 010 000 €						1 010 000 €	**1 110 000 €**
		Acaabcca	101 000 €						101 000 €	
43	Santo-Holding	Aabbbcbccb			11 100 000 €				11 100 000 €	**11 100 000 €**
44	Shestoi Okean	ABA	10 110 000 €						10 110 000 €	**10 110 000 €**
45	Stavropolstroioptorg	Aabccb-A	0 101 000 €						0 101 000 €	**1 010 000 €**
		CCAB			1 010 000 €				1 010 000 €	
		Acccbc		101 000 €					101 000 €	
46	Taim	Ccaa			0 110 000 €				0 110 000 €	**1 101 000 €**
		Acca	1 100 000 €						1 100 000 €	
		Abacc Abca			1 000 000 €				1 000 000 €	
		Cbccccc	100 000 €						100 000 €	
		Ccaaa					100 000 €		100 000 €	
		Bcacab			110 000 €				110 000 €	
		Bacc Bac				00 000 €			00 000 €	
47	Technoresurs	Bbcac		1 000 000 €		10 000 €		0 000 €	1 011 000 €	**1 011 000 €**
48	Teploimport	Cbccccc	0 001 000 €						0 001 000 €	**1 001 000 €**
		Caaacc	1 011 000 €						1 011 000 €	
		Acca	010 000 €						010 000 €	
		Acbbcac Bcccbc	11 000 €						11 000 €	
		Caccacc	10 000 €						10 000 €	
49	Teplotsel	Bcccabac	1 001 000 €						1 001 000 €	**1 010 000 €**
		Bacc	1 101 000 €						1 101 000 €	
		Bbbcaa		110 000 €					110 000 €	
		Cbccccc	100 000 €						100 000 €	
		Acca	000 000 €						000 000 €	
		Abcbbbca	011 000 €						011 000 €	
		Acccaa	101 000 €						101 000 €	
50	Zavod Universal	Cbcabcaac				0 100 000 €			0 100 000 €	**0 100 000 €**
	Other		100 101 000 €	01 101 000 €	10 001 000 €	0 110 000 €	0 010 000 €	1 011 000 €	**001 101 000 €**	
	TOTAL:		**110 011 000 €**	**111 000 000 €**	**101 111 000 €**	**10 100 000 €**	**11 110 000 €**	**11 110 000 €**	**1 111 100 000 €**	

Source: Litvinchuk Marketing Co.

Bc bbba bc ccaabbb bbca cbaabbc bcbb abcc-bcacababcca ccaccba.