



Akrikan Ltd.

Vladimir, Russia

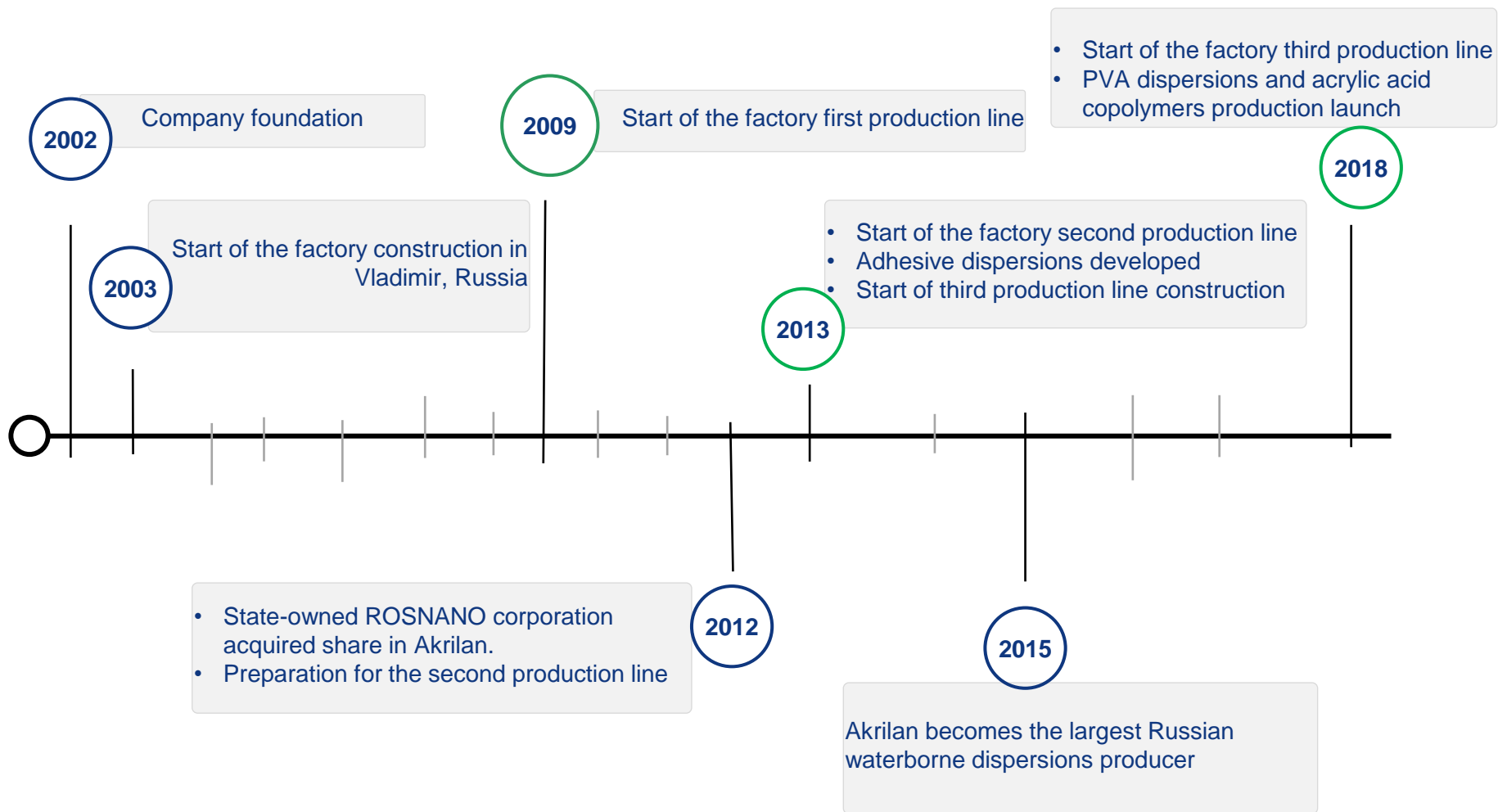
Waterborne Polymer Dispersions Production



GENERAL INFORMATION

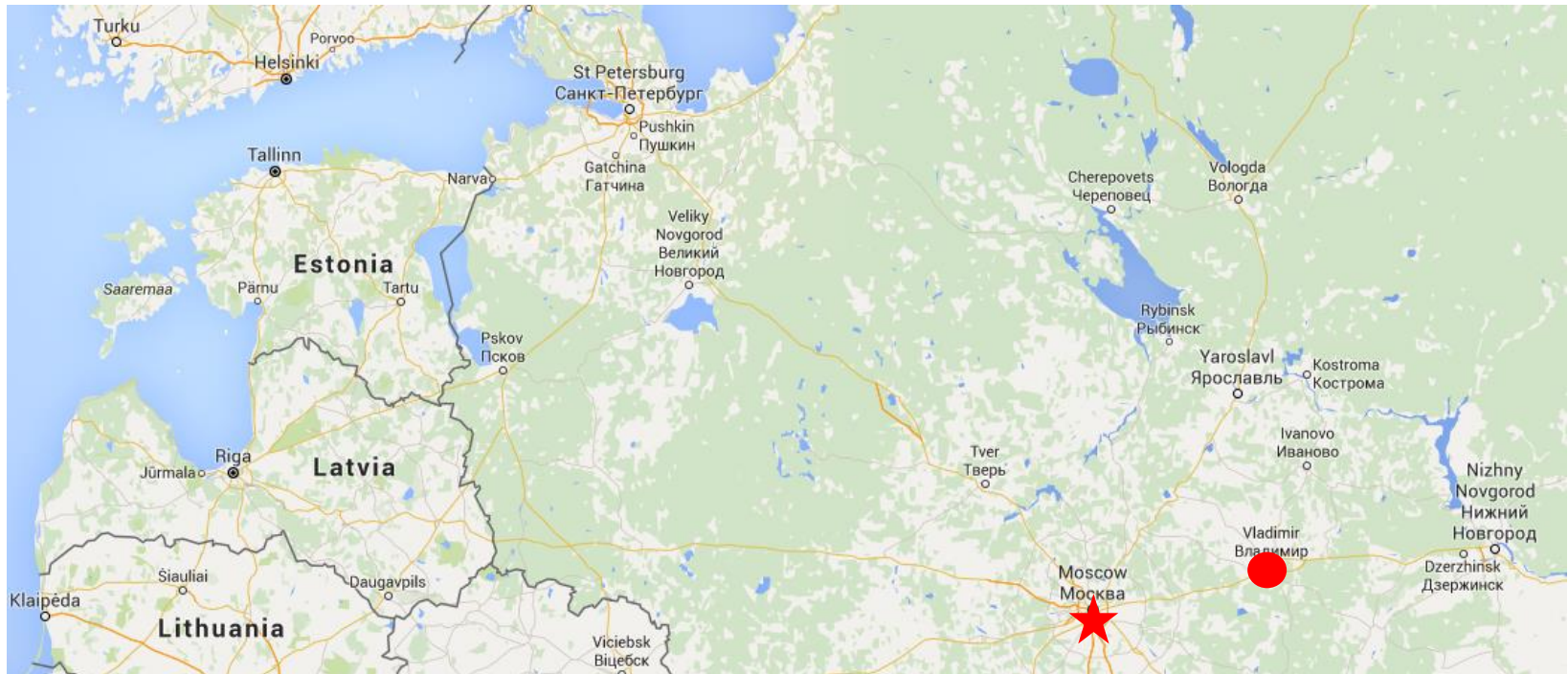
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Company History



Company Location

Akrilan Ltd. Is located in Vladimir, Russia, 200 km east from Moscow



Akrikan core business – industrial fine organic synthesis

Factory annual capacity:

- Currently (2016) 40 000 tons
- With 3rd production line (2018) 65 000 tons

Main products:

- Waterborne polymer dispersions (acrylic and styrene-acrylic)
- PVA and acrylic acid copolymers (2018)





Akrilan in numbers

1 Largest producer in Russia

150+ Customers

> 18'000 Tons produced in 2015

17 Dispersions grades

8285 km to the farthest customer

80+ Employees

A photograph of an industrial facility, possibly a power plant or refinery, featuring a complex network of pipes, valves, and machinery. A prominent staircase with yellow railings is on the left. Large cylindrical tanks are visible, with one labeled 'T400.4' and another 'T400'. The scene is brightly lit, likely from large windows on the right. The text 'TECHNICAL PERFORMANCE' is overlaid in large, bold, blue letters across the center of the image.

TECHNICAL PERFORMANCE

01.07.2016

Technology and Equipment

- Two production lines currently (12 m³ and 30 m³ reactors)
- Technology and formulations are developed in cooperation with Raisio Chemicals (Finland) R&D team
- Japanese (Mitsubishi Corp.) and Finnish production equipment at factory
- 100% automation of organic synthesis process (Siemens control equipment and software)
- Advanced technology production allows to precisely control dispersions particles size



Quality Control

- ISO 9001-2011 Quality Management System certified
- Innovative solutions, production know-how and full technological processes automation provide consistent quality of every product batch to our customers
- 100% incoming raw materials quality control and interoperation product quality control before and after filtration
- Finished goods sampling and quality control prior to shipping to customers
- All products are APEO-free, and comply with residual VOC content regulations



- Akrilan is developing new products to meet customers requirements on a continuous basis
- R&D team synthesizes dispersions at lab reactor and provides full set of tests prior to industrial scaling:
 - MFFT
 - Particles size distribution
 - Viscosity
 - Film properties (water absorption, tensile strength, hardness, etc.)
 - Residual VOC content (chromatography)





PRODUCTS AND APPLICATIONS

Applications

- Total Akrilan share on Russian waterborne dispersions market is 22%
- Main applications are as follows:



Paints & Coatings

Key Products

101

Akrikan 101 all-purpose St/Ac dispersion with core-shell particles structure. Excellent pigment binding capacity, outstanding water and wear resistance.

102

Akrikan 102 universal St/Ac dispersion with excellent film elasticity, low VOC content and good pigment binding capacity.

106

Akrikan 106 all-purpose St/Ac dispersion. It is a universal binder for interior and exterior paints, plasters, silicone and silicate based coatings and for nonwovens production.

114

Akrikan 114 all-purpose St/Ac dispersion with excellent film elasticity. It is a universal binder for interior and exterior paints, plasters and adhesives.

115

Akrikan 115 universal St/Ac dispersion with high pigment binding capacity. It is a universal binder for interior and exterior paints, plasters and primers.

127

Akrikan 127 pure-Ac dispersion with core-shell particles structure. It is a binder for protective metal coatings; self-cross-linking at room temperatures, provides high-gloss topcoats due to small particles size and core-shell morphology; high UV and block resistance.

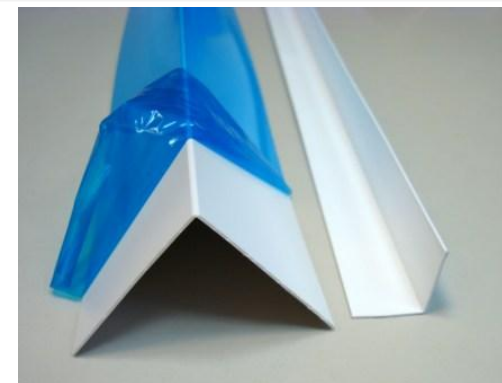
Paints & Coatings Key Products Properties

Dispersion	Solids	Particles Size	MFFT	Viscosity mPa*s	Application
Akrikan 101	50 ± 1%	0.1 µm	13 – 19 °C	200 – 1000	<ul style="list-style-type: none"> - Interior paints and topcoats - Exterior architectural coatings - Joint sealants, hard putties and plasters - Concrete coatings - Wood lacquers - Primers
Akrikan 102	50 ± 1%	0.095 µm	ca. 0 °C	200 – 1000	<ul style="list-style-type: none"> - Paints & coatings for internal and external applications - Joint sealants, hard putties and plasters - Highly elastic coatings and materials
Akrikan 106	50 ± 1%	0.15 µm	ca. 17 °C	700 – 1500	<ul style="list-style-type: none"> - Interior paints and topcoats - Exterior architectural coatings - Joint sealants and plasters - Nonwovens production
Akrikan 114	50 ± 1%	0.13 µm	5 – 7 °C	100 – 500	<ul style="list-style-type: none"> - Interior paints and coatings - Flexible architectural coatings and adhesives - Crack resistant sealants and plasters
Akrikan 115	50 ± 1%	0.13 µm	18 – 22 °C	100 – 500	<ul style="list-style-type: none"> - Interior paints and coatings - Architectural coatings and adhesives - High-solids paints & coatings
Akrikan 127	50 ± 1%	0.1 µm	ca. 0 °C	1500 – 2000	<ul style="list-style-type: none"> - Anticorrosion protective metal primers / topcoats - High-gloss metal topcoats - High-quality durable architecture paints & coatings



Adhesives Key Products

Dispersion	Solids	Tg	MFFT	Viscosity mPa*s	Application
Akrikan 420K	55 ± 1%	-44 °C	-	100 – 300	Adhesive for duct tapes production; <ul style="list-style-type: none"> - Eq. surface tension 33-39 °C mN/m - Shift adhesion (carton) >45 min - Shift adhesion (steel) >600 min
Akrikan 450	55 ± 1%	-22 °C	0 °C	100 – 500	Adhesive for var. types of floor coatings (copolymer of BA, MA and acrylonitrile)
Akrikan 431	50 ± 1%	-44 °C	-	100 – 300	1 component self-crosslinking adhesive for temporary protective films <ul style="list-style-type: none"> - Eq. surface tension 33-39 °C mN/m - Peel adhesion (180°) 0.5 – 1.4 N/cm - Shift adhesion (steel) >600 min



Nonwovens Key Products

Dispersion	Solids	Tg	MFFT	Viscosity mPa*s	Application
Akrikan 301/303/304	45 ± 1%	-	50 – 60 °C	30 – 100	Self-crosslinking binders for var. types of nonwovens production <ul style="list-style-type: none"> - High pigments binding capacity - Grades differ in tensile strength and adhesion
Akrikan 314	50 ± 1%	-	9 – 13 °C	100 – 300	Binder (bonding agent) for var. tufted carpets production <ul style="list-style-type: none"> - High pigments and extenders binding capacity - St/Ac copolymer - Good elasticity / hardness balance

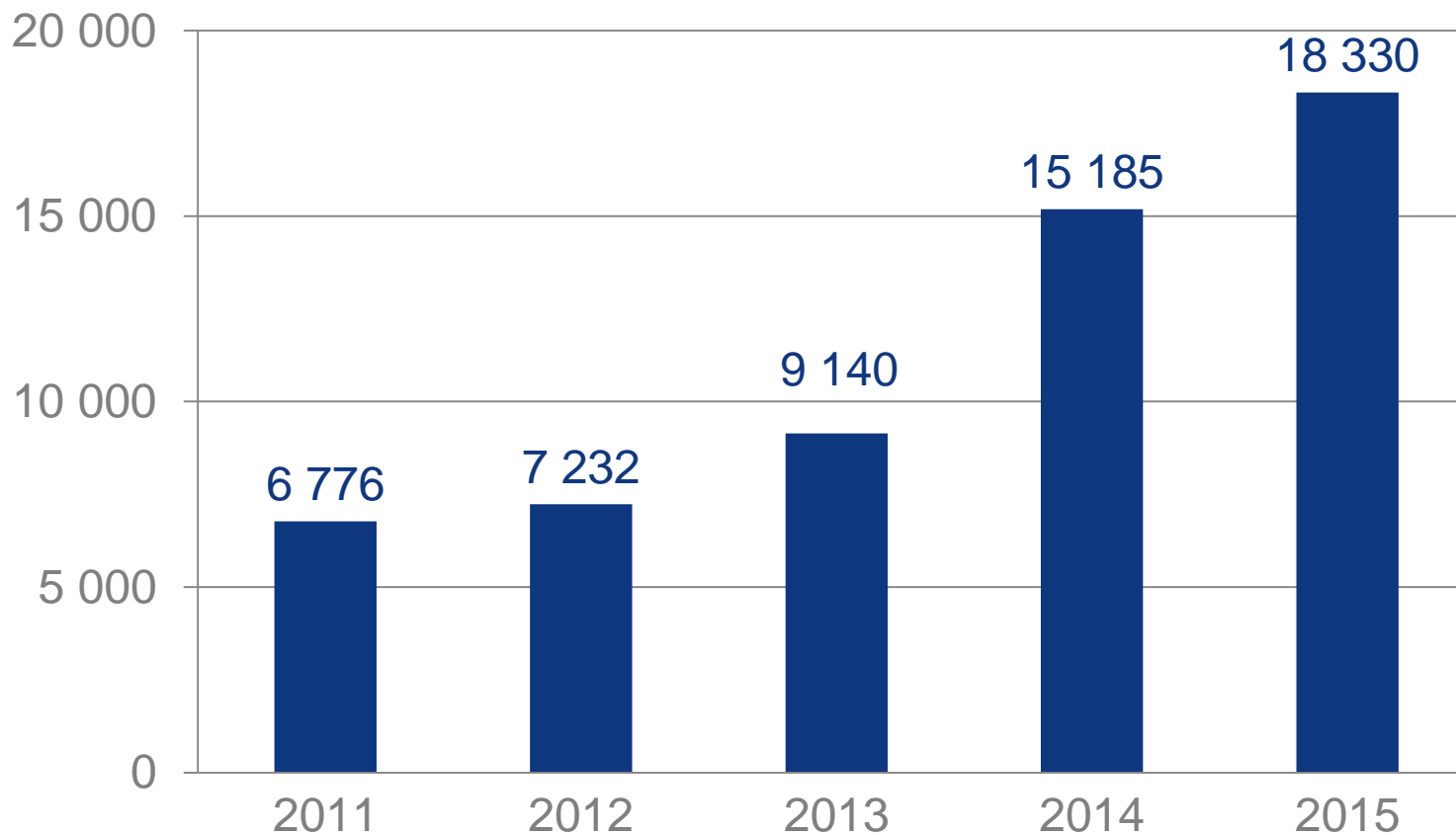




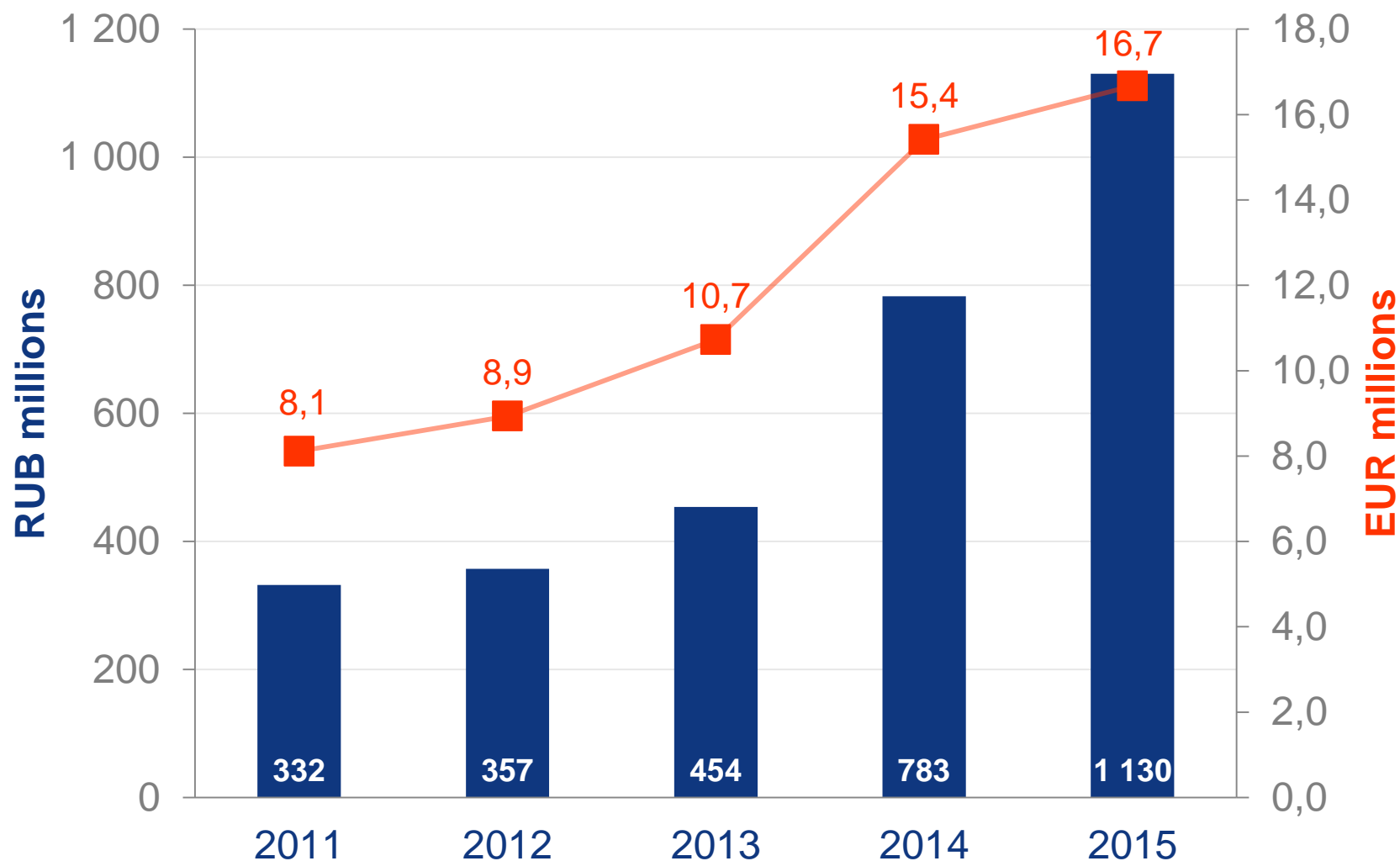
SALES PERFORMANCE 2011 – 2015

Production Volume

Metric tons



Sales Revenue





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