

Premium sales of bitumen materials (mt)

Source: Company data



Sales of basic petrochemical products² (mt)

Source: Company data



BITUMEN MATERIALS

Gazprom Neft is one of the largest manufacturers and suppliers of bitumen products in Russia. Gazprom Neft has its own bitumen production facilities in Russia (Moscow, Omsk, Yaroslavl, Ryazan, Vyazma, and Salsk), Serbia and Kazakhstan.

In 2018, premium sales of bitumen materials reached 350 kt, up 20.7% year-on-year. The growth was due to a wider range of bitumen, its derivatives and related services offered, as well as an increase in domestic demand, expanded geography of third-party refining and access to new overseas markets. In 2018, the Company started selling premium products in Slovakia, Poland, Moldova and Colombia.

Measures to improve capacity utilization at the large bitumen unit of Moscow Refinery allowed the Company to produce more than 1.5 mt of products in 2018 (its design capacity is 1.7 mtpa). Also in 2018, the Company increased the output at its Ryazan plant by a third to 500 tpd.

Gazprom Neft was the first Russian petroleum company to start developing its own bitumen terminal network. The Company acquired its first asset, Salsk (Rostov Region) high-tech production and logistics terminal, in 2018. It will become an important element to reinforce its logistics system that will ensure the supply of innovative bitumen products throughout Russia's southern regions.

The terminal is capable of transshipping up to 140 ktpa of PMACs. Automated temperature control in bitumen tanks maintains the product quality, and the mixing system ensures product homogeneity. In addition to that, the plant operates a PMAC¹ manufacturing unit.

The Company's bitumen business unit also carries out breakthrough projects, including automation of product quality assurance and logistic schemes based on digital simulations.

PETROCHEMICALS

Gazprom Neft is the largest Russian producer of several basic petrochemicals, such as aromatic hydrocarbons (benzene, paraxylene, orthoxylene, and toluene) and propane-propylene fraction (propylene-containing LPG). Basic petrochemicals are manufactured at the Gazprom Neft Group's refineries in Omsk, Moscow and Yaroslavl.

Deep conversion petrochemicals (polypropylene) are produced at NPP Neftekhimiya (Moscow) and Poliom (Omsk). In 2018, polypropylene production totalled 134 kt at NPP Neftekhimiya and 214 kt at Poliom. NPP Neftekhimiya achieved a maximum hourly production rate of 17.25 t per hour, thus establishing its own absolute record. Thanks to this, the plant surpassed its previous annual propylene production record by 2.5%

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REGIONS

supplied
by the Company's
road construction
materials

¹ Polymer modified asphalt cements (PMACs) are made of bitumen by adding polymers and plasticizers. Compared to base bitumens, PMACs have enhanced qualities, such as increased resistance to deformation, improved behaviour at high and low temperatures, and increased resistance to ageing. Such materials expand the time between road repairs, doubling their lifespan. Gazpromneft Bitumen Materials develops such products in its own research and development centre.

² Excluding sales by joint ventures Poliom and NPP Neftekhimiya.

Technology

Digital Process Engineer

The Digital Process Engineer project implemented by Gazprom Neft's bitumen business unit involves creation of a mathematical simulation that will try to correlate the properties of raw materials and finished products based on the analysis of large data sets. Using the data obtained, the Company's experts will be able to create new formulations, superior to all the existing ones.

The technologies currently under development will, on the one hand, accumulate parameters of finished products and, on the other hand, analyse the entire binder production process and formulate future quality properties of the product by comparing the resulting parameters with the accumulated database. This will help create a system that will formulate finished product properties online.

The project is hosted by Ryazan Bitumen Binders Plant (RBBP) that collects and accumulates production statistics. RBBP will produce new products to be formulated by artificial intelligence. The research centre of Gazpromneft Bitumen Materials located in Ryazan will act as a think tank tasked with creating and training the Digital Process Engineer.



"Every third road in Russia is built with our products"



Gazprom Neft's high-tech bitumen
[\(coverage by RBC TV\)](#)

Technology

Smart Logistics

Based on the process capacity of Gazprom Neft's bitumen business unit, IT solutions are developed to manage the supply of bitumen materials to any location at a predetermined time. These solutions will improve the efficiency of road transportation logistics. The Smart

Logistics project focuses on the development, testing and implementation of real-time data accumulation and processing solutions (Big Data and Fast Data) to optimise and improve the efficiency of logistics, processing and sales of petroleum products.