



## **BEST MATERIALS FOR RUSSIAN ROADS**

SIBUR, Rosavtodor and Avtodor to continue working together on the use of polymer materials in road construction.

During the 8th Cross-Industry PRO Bitumen and Polymer-Bitumen Binders conference, SIBUR, the Federal Road Agency (Rosavtodor) and the Russian Highways State Company (Avtodor) have signed a cooperation agreement to join their forces implementing cutting-edge technologies and polymer materials in road construction.

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IN 2018, 26,000 KM OF ROADS WERE IMPROVED AS PART OF THE SAFE AND HIGH-QUALITY ROADS INITIATIVE. SIBUR'S SBS POLYMERS SERVED AS COMPONENTS FOR THE POLYMER-BITUMEN BINDERS USED FOR THE ABOVE PURPOSES.

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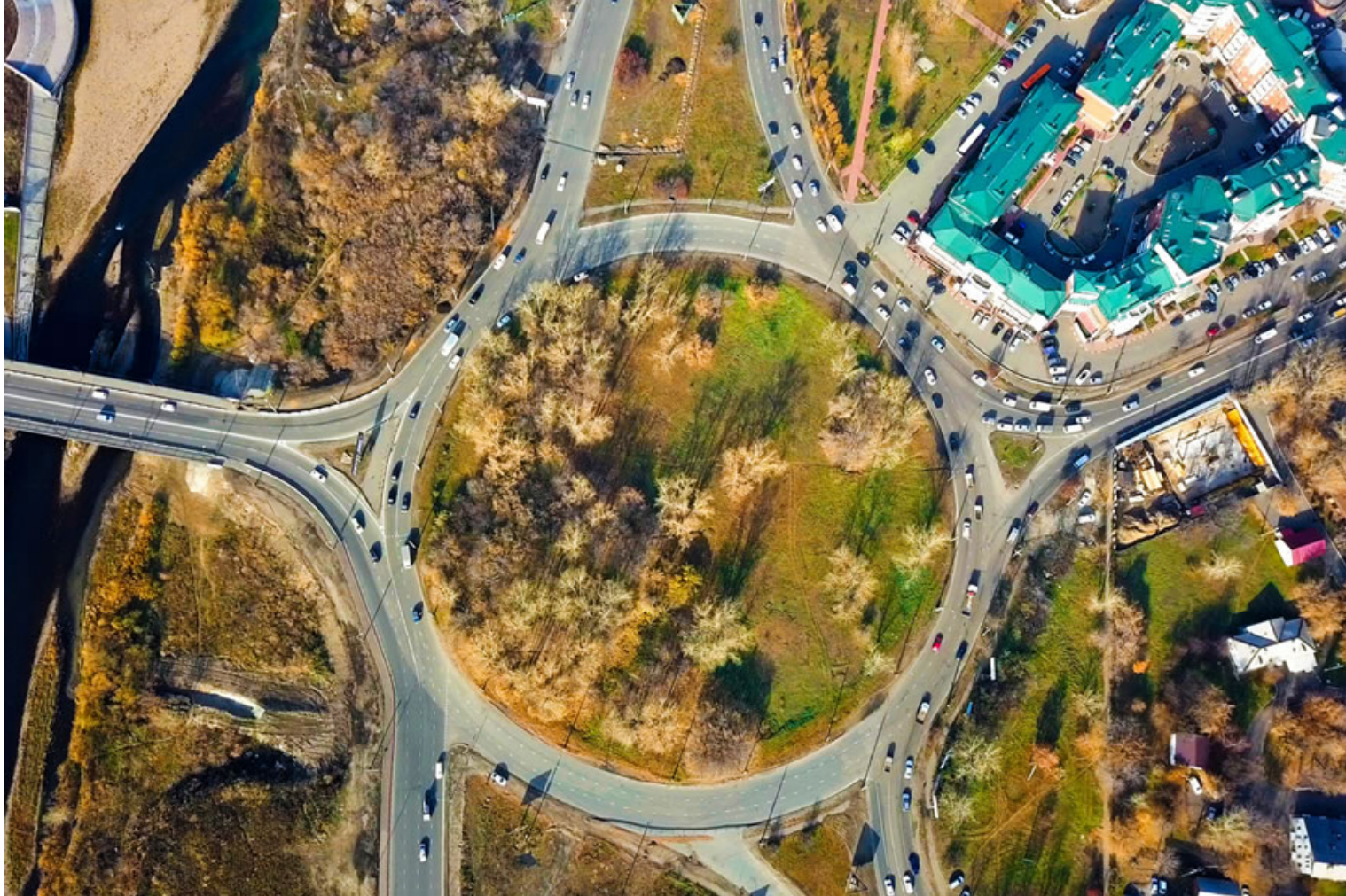
The parties also agreed to support and develop R&D potential in this field, and also production and use of polymer materials.

The government has been paying close attention to the quality of roads and road construction in recent years. The key driver for the industry is the Safe and High-Quality Roads national project, which currently covers 104 urban agglomerations and regional roads, as well as large infrastructural projects launched following the so-called May decrees by Vladimir Putin. For example, the Comprehensive Plan for Expansion and Modernisation of Transport Infrastructure approved in February 2019 provides for the construction and upgrade of roads connecting Russia's economic development hubs and the Europe–Western China road corridor.

The performance of road pavements can be improved using SBS polymers, which enhances bitumen quality in a most effective and sustainable way, experts say.

Experts also report stable growth, with 6.5 mt of bitumen production in 2018 and more than 63% of the weighted average capacity utilisation across the industry. Like other countries, Russia gradually expands the use of polymer-bitumen binders (PBBs), performance grade (PG) bitumens and bituminous products. In 2018, PBBs output was over 400 kt, while modified bitumen consumption in Russia grew by 18%. The share of PBBs and polymer-modified bitumen materials in road construction exceeded 7% in 2018 compared to 4% in 2014. Experts believe that market players should continue developing new-generation materials that ensure longer road lifetime.





*Repair of the Maratov interchange in Irkutsk as part of the Safe and High-Quality Roads national project. Photos: bkdrf.ru.*

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POLYMER-BITUMEN BINDERS (PBBs) ARE A KEY APPLICATION AREA FOR RUSSIAN SBS POLYMERS. THE LIFETIME OF PBB-CONTAINING PAVEMENT IS INCREASED FROM 3–4 YEARS TO 7–10 YEARS.

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“Rosneft Bitumen is working on a solution,” Pavel Sterzhanov, CEO of RN-Bitumen, said at the PRO Bitumen and PBBs conference. “We are planning to carry out comprehensive laboratory research and tests, support the production and construction of asphalt concrete road pavements and monitor them throughout the stated lifetime.”

SIBUR’s employees shared the results of the research on model bitumen binders that can be used in a wide range of PG products as part of various materials and in different regions. New technologies will make Russian roads safer, more comfortable and durable.

In order to satisfy the growing demand for SBS polymers, SIBUR is set to launch a new production unit at its Voronezh facility in 2020. The Company’s current SBS polymers output amounts to 85 ktpa, with more than 50% of it consumed domestically. Feedstock for new production units will be supplied by ZapSibNeftekhim, SIBUR’s another large project. As a result, the road construction market will get more of the popular bitumen modifiers. The SBS product portfolio will be extended by as many as five new grades, which will be used not only in production of PBBs but of the entire range of road construction and repair materials such as road sealants and road marking paints.



*Signing of the agreement at the 8th Cross-Industry PRO Bitumen and Polymer-Bitumen Binders conference. Photos: rosavtodor.ru.*

“The SBS-based PBB production has at least doubled in the past five years. The use of polymers in road construction increases repair intervals for federal highways with improved pavements to 12 years between minor repairs and 24 years between major repairs. This is mainly a result of our long-standing and successful cooperation with Avtodor and Rosavtodor, and we will keep supporting the road construction industry by offering polymers and sharing our technology expertise,” said Pavel Lyakhovich, member of the Management Board and Managing Director at SIBUR.