



INNOVATIONS AND BITUMEN

SIBUR tests a new cooperation model as its Voronezh site welcomes a joint R&D to R&D session with Rosneft Bitumen.

Elastomers R&D Centre has hosted an R&D to R&D training session with Rosneft Bitumen, a key TPE consumer in the road industry. The event was mostly aimed at sharing knowledge on production and use of TPE and TPE-based polymer-bitumen binders (PBBs).

SUPERPAVE IS AN ASPHALT CONCRETE MIXTURE DESIGN FOR ROAD PAVEMENTS BOASTING IMPROVED OPERATIONAL PROPERTIES. CLIMATE AND POTENTIAL TRAFFIC INTENSITY ARE FACTORED IN TO PRODUCE ROAD PAVEMENTS THAT ARE RESILIENT TO RUTTING, CRACKING AND FATIGUE.

The idea of running a joint session to exchange experience dates back to April, when SIBUR reported on challenges in road construction during the 5th Cross-Industry Conference Bitumen and Polymer-Bitumen Binders. Agenda for 2018. This is not the first time the companies work together. A few years ago, SIBUR ran a series of tests at the request of Rosneft Bitumen that helped the company to switch from imported feedstock to domestic polymers.

“The SuperPave technology gaining traction in the road industry and polymer properties it requires were among the most pressing issues raised at the conference. We immediately started to tackle them during the event in collaboration with Rosneft Bitumen,” said Vyacheslav Evtushenko, Senior Product Development and Technical Support Expert of the Plastics, Elastomers and Organic Synthesis Division at SIBUR.

The session was attended by heads of Rosneft Bitumen’s production, technology and quality control and SIBUR’s cross-functional team of marketing and sales, product development and technical support, Elastomers Centre and NIOST. The session participants discussed new joint projects aimed at promoting innovation materials in road construction.

Elastomers R&D Centre representatives gave consumers some insights into composition and synthesis of SBS molecules, as well as their impact on consumer properties. They also shared their knowledge on the recipe and production methods of PBB preparation, on the basis of European bitumens in particular.



Training session in Elastomers R&D Centre at SIBUR's Voronezh site.

“Even though our company had developed extensive technical expertise in production of high-quality bitumens and their derivatives for road construction, we were surprised by the strong competence shown by the R&D and product development experts of SIBUR. We are obviously ready to promote TPEs and PBBs in the road industry together,” said Anatoly Novikovskiy.

In turn, Rosneft Bitumen shared details on traditional bitumen materials and innovative SuperPave binders.

“Our colleagues from Rosneft Bitumen demonstrated a profound knowledge of the SuperPave methodology and application. They succeeded in giving us all the necessary details and answering our questions,” commented Andrey Tikhonov.

The final part of the session focused on development of SIBUR's new breakthrough products for Rosneft Bitumen premium grades. Artem Pospelov, Chief Expert at Elastomers R&D Centre, presented Agile development principles, Scrum and Kanban tools, as well as successful R&D pilots of SIBUR. The Scrum project is about to be launched later this year for the companies to jointly create a new grade that will be part of the Rosneft Bitumen product formulas and foster further use of PBBs in the road industry.

Agile is a project management system that was created in the 1990s by US software developers and later spread across other businesses. Agile prioritises people and their collaboration over processes and tools and puts productivity ahead of documents, customers and partnerships – ahead of contracts, readiness to change – ahead of approved plans.

Scrum is an implementation of Agile principles seeking to boost productivity. Managers are suggested to set strategic goals while teams on their own decide how to achieve them.

Kanban comes from the Japanese words kan meaning “visual” and ban meaning “a card” or “a board”. Kanban is a method introduced by Taiichi Ohno in Toyota Production System based on reducing the number of tasks run at a particular moment of time. The columns on the board depict a workflow process, while the tasks are represented as cards moving from one column to another.

“We regularly get customers’ requests for breakthrough products and strive to cater for them. Going forward, we will engage in such joint product development that would meet the customers’ needs by using proven Agile and Scrum approaches,” Vyacheslav Evtushenko summed up.

