



REINFORCING SUSTAINABLE TYRE TECHNOLOGY

Kordsa is a global leader in the development and manufacture of tyre reinforcement technology products. A clear focus on quality and innovation has made Kordsa a global brand that offers stronger and lighter reinforcement materials for the automotive and aviation industries. The company has also widened its lines of business by transferring its expertise in tyre reinforcement technologies into construction reinforcement and composite technologies, repositioning itself as 'The Reinforcer'. Philip Yorke reports.



Today one out of every three automotive tyres manufactured globally, and two out of every three aircraft tyres produced worldwide, are reinforced by Kordsa high-tech cord products. Thanks to the company's technological leadership, unrivalled expertise and broad global footprint, it continues to set the standards for the industry.

Kordsa was founded in 1973, and following consistent growth and a number of key acquisitions over the last 40 years, it has emerged as the world's foremost producer of nylon and polyester yarns.

Thanks to its strong global footprint, combined with its technological leadership and broad experience in tyre reinforcement technologies, the company has been able to widen its lines of business to include construction reinforcement and advanced composite technologies. Today the company has over 4000 employees operating in eight plants across five countries: Turkey, Brazil, Indonesia, Thailand and the USA.

In summarising its latest investments in the tyre reinforcement market, Kordsa inaugurated its second tyre cord fabric and polyester yarn plant in Indonesia with a USD 100 million investment in 2015. The following year Kordsa made an additional investment of USD 30 million in order to expand its polyester production by 7kton in both Indonesia and Turkey. Furthermore, in order to maintain its leadership position in the US, the company recently purchased the facility of the Invista Corp in the US state of Tennessee.

Kordsa has two official R&D Centres, focusing on light-weighting and reinforcing projects for both composites and tyre reinforcement. Its first R&D Centre, which was founded in 2007, ranks among the top R&D Centres in Turkey and is mainly focused on the reduction or elimination of compound while applying tyre reinforcement materials to reduce rolling resistance.

Driving composite technologies forward

However, as mentioned above, Kordsa is also increasingly expanding into new areas of business besides tyre reinforcement, one of the most significant of which is composite technologies for lightweighting.

In line with this strategy, last year (2016) the company invested USD 30 million into a new Composite Technologies Centre of Excellence, based in Turkey. Established in cooperation with Sabanci University, it has one of the most advanced testing laboratories of its kind in the world. The resulting ground-breaking composites that emerge from these laboratories offer a range of new product benefits to many manufacturing industries. The new Kordsa composite material is 10 times lighter and three times stronger than steel and ▶





can be used in such diverse industries as automotive, aviation, transportation and marine.

Kordsa has also recently developed a new resin technology that provides a revolutionary shortening in the curing process in automotive production and has brought speed and efficiency for mass production to the automobile industry. With the new resin technology, the curing time of nine minutes has been reduced to three minutes and the surface of the composite material is of a much higher quality than its counterparts.

In line with this innovative vision of combining industrial and academic processes under one roof, Kordsa had a record number of patent applications in 2016, when it applied for 32 new inventions and 116 patents. In total, the company has 411 patent applications and 128 inventions in place.



New technology for construction sector

Established in 2014 the Kordsa Construction Reinforcement Business Unit is involved in market research and technology development for the manufacturing of construction reinforcement products. Kordsa has combined its broad experience in industrial fibre technologies with its reinforcement mission to introduce its first construction reinforcement product: KraTos. This advanced new product range stands out as a new synthetic fibre for concrete reinforcement of exceptional quality offering: speed, labour cost savings, equipment and energy efficiency, as well as long-lasting durability.

Kordsa's latest KraTos Micro product provides superior results in terms of preventing early age drying shrinkage cracks when compared to polypropylene and basalt fibres.

The company's KraTos Macro brand offers a highly engineered and optimised fibre design that ensures homogeneous 3-dimensional distribution in concrete. This unique product provides all-round crack control by increasing load-bearing capacity of concrete under service and the design loads of the structure.

In addition, its superior toughness properties, easy mixing and applicability enable it to be used in a variety of construction applications including slab-on-ground concrete, screed, shotcrete, tunnel lining and pre-cast concrete components.

Focus on sustainability

In 2015 Kordsa published its first Sustainability report that represented its economic, environmental and social performance during 2014. Since then its clear focus on sustainability has been rewarded with many prestigious industrial prizes. The report itself was awarded two prizes by the League of American Communication Professionals. In 2016 the company published its second

sustainability report in accordance with GRI4 guidelines and is currently working on its third Sustainability Report. In line with its corporate responsibility understanding the company also sponsors and runs many social welfare projects.

Value-added technologies

Kordsa's CEO Ali Çalışkan told Industry Europe, "As Kordsa Reinforcers, we will continue to develop value-added innovative technologies while creating products for a more sustainable world. We know that companies doing business in today's rapidly changing and competitive markets are expected not only to create economic value, but also to offer value to their stakeholders by managing their social and environmental responsibilities.

"At Kordsa we execute all our activities in such a manner that they facilitate continuous improvement and generate value for our stakeholders and the society that we live in."

Tailor-made supply-chain

Efficient supply-chain management is an important component in the on-going success of Kordsa and in fulfilling its customers' needs and providing added value. The company is continuously improving its value proposition by enhancing its supply chain services and their outcomes. Kordsa handles its incoming customer orders in the most efficient manner possible, allocating inventory and production to individual customer orders.

The company's unique supply-chain process simultaneously manages the procurement cycle, manufacturing cycle, replenishment cycle and customer order cycle. Its main proposition is to be closer to its customers by understanding them and fulfilling their needs on time and in full. □

For further details of Kordsa's innovative sustainable products and services visit: www.reinforcer.com