

HIGH PERFORMANCE POLYMERS PRESS RELEASE

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RadiciGroup at K 2019 with a new high temperature application product: Radilon® NeXTreme

The Group showcases its expanded range of innovative materials focused on performance, safety and sustainability

During K 2019, at **Hall 6 Stand B10**, the RadiciGroup **High Performance Polymers Business Area** is introducing its newest offering **Radilon® NeXTreme**, together with other recent solutions that have been developed in response to the increasingly demanding requests from global markets. Radilon® NeXTreme is a polyamide material capable of withstanding long-term exposure to high temperatures.

"Radilon® NeXTreme was initially developed for automotive applications, for which it is well suited as it features exceptional heat ageing resistance in air at 230°C," said Erico Spini, global marketing manager of RadiciGroup High Performance Polymers. "After that, we developed a grade on the same polymer base for extrusion of technical filaments for industrial applications under very severe use conditions."

Two grades of **Radilon® NeXTreme** are offered for the automotive sector: **35% glass-fibre** reinforced (RV350HHR 3800 BK) and **50% glass-fibre** filled (RV500HHR 3800 BK). Typical applications for these materials are air suction system components requiring considerable heat resistance.

"Our third grade, Radilon® NeXTreme HSW 100 NT, for the extrusion of technical monofilament," Mr. Spini added, "has already been successfully tested both in the extrusion process and in specific applications where high heat resistance is required (professional brushes for industrial use, brushes for metal cleaning as a replacement for natural tampico fibre and professional brushes for hairdressers)."

The K trade fair for plastics and rubber is an opportunity for RadiciGroup to meet customers from all over the world and initiate new collaborations and innovative developments.

"Having production plants on 3 continents makes RadiciGroup a global company, with the added strength of vertically integrated polyamide production," stressed Cesare Clausi, global sales manager of RadiciGroup High Performance Polymers. "Being part of RadiciGroup allows us to create strong synergies, from R&D to recovery of production waste, and a strategic approach to sustainability."

With regard to fields of application, the RadiciGroup High Performance Polymers' Research and Innovation team has lately focused on e-mobility, a rapidly expanding market where lightweighting of vehicles through metal replacement is an important necessity. Reducing the weight of e-vehicles is even more essential than for conventional fossil fuel vehicles, because it plays a role in increasing the mileage range. Polyamide flame resistant halogen and red phosphorous-free materials, such as Radiflam® A (PA 6.6) and Radiflam® S (PA6), are already being used in many components of the battery system, connectors and inverters for cars, heavy vehicles, motorcycles and electric bicycles. For electric vehicles, heat management is of particular importance in that it determines the overall efficiency of the system. At K 2019, RadiciGroup is exhibiting solutions involving both standard products (Radilon® A, a hydrolysis resistant PA6.6) and innovative ones, for instance Radilon® D (PA6.10 partially obtained from bio sources), Radilon® DT (PA6.12), Radilon® Aestus T1 (PPA) and Raditeck® (PPS).

For the more traditional automotive market, RadiciGroup High Performance Polymers offers solutions using PA6.12 (Radilon® DT) and PA6.10 (Radilon® D) as replacements for PA12. This choice is dictated by the need to have materials capable of withstanding higher continuous use temperatures for some automotive segments than the traditional PA12 can handle. At the K trade fair, RadiciGroup HPP is introducing new materials specifically developed for air ducts, cooling system ducts, TOC and SCR hoses, and fuel line tubes, which are capable of passing tests in air and gasoline at continuous use temperatures of up to 120-130°C.

K 2019 is also a showcase for new specialties for **water**, **heating and plumbing**. "This is a sector we are working on more and more," Enrico Spini continued. "At the fair, we are introducing new materials approved for contact with drinking water according to the

standards WRAS (UK), W270 DVGW and KTW (Germany), ACS (France) and NSF 61 (USA). We have created polyphthalamides (Radilon® Aestus T1 RKC) for contact with hot water, approved for use at temperatures of up to 85°C, according to the KTW standard; special grades of PA6.12 (Radilon® DT RKC2) featuring high hydrolysis resistance and excellent fluidity, approved in conformity to the KTW standard for contact with hot water up to 60°C; and, lastly, PA6.6 grades (Radilon® A RKC2) featuring enhanced resistance to thermal oxidation."

Moreover, we have developed special polyphthalamide-based materials (Radilon[®] Aestus T1 FC) suitable for use **in contact with food**. They have passed specific tests (EU 10/2011 standard) for prolonged contact with food at high temperatures: in this case, the key words are safety and health protection.

Sustainability has always been part of the RadiciGroup business strategy. In 2018, moving in this direction, the High Performance Polymers Business Area was the first Group business area to join the **Operation Clean Sweep** programme promoted by Plastics Europe, with the aim to prevent plastic pellet and powder loss into the environment. One after another, all RadiciGroup business areas have been taking on this commitment. The goal of Operation Clean Sweep is the central topic of the workshop "Zero Pellet Loss. A value chain commitment", scheduled at the K fair on 22nd October at 11.30 a.m. at the RadiciGroup stand **(Hall 6 Stand B10)**.

RADICIGROUP – With approximately 3,100 employees, sales revenue of EUR 1,211 million in 2018 and a network of production and sales sites located throughout Europe, North America, South America and Asia, RadiciGroup is one of the world's leading producers of a wide range of chemical intermediates, polyamide polymers, engineering plastics, synthetic fibres and nonwovens. These products – the result of the Group's outstanding chemical expertise and vertically integrated polyamide production chain – have been developed for use in a variety of industrial sectors, such as: AUTOMOTIVE – ELECTRICAL AND ELECTRONICS – CONSUMER GOODS – APPAREL – FURNISHINGS – CONSTRUCTION – HOUSEHOLD APPLIANCES – SPORTS. The basis of the Group's strategy is a strong focus on innovation, quality, customer satisfaction and social and environmental sustainability. With its business areas - **Specialty Chemicals**, **High Performance Polymers** and **Synthetic Fibres & Nonwovens** (Performance Yarn, Comfort Fibres and Extrusion Yarn), RadiciGroup is part of a larger industrial group that also includes textile machinery (ITEMA), energy (GEOGREEN) and hotel (SAN MARCO) businesses.





