



**24th Fakuma – International Trade
Fair for Plastics Processing**

**Come and see us
Stand A1 1106**

13-17 OCTOBER 2015 - FRIEDRICHSHAFEN

RadiciGroup's focus at Fakuma 2015: High-performance materials for metal replacement and the electrical, water and plumbing industries.

Once again RadiciGroup is showcasing its PBT, TPE and POM polyamide engineering plastics at the



Fakuma international trade fair in Friedrichshafen, Germany. The focus is on the Group's most recent innovations for metal replacement and the electrical, water and plumbing industries. And taking centre stage are the **RADISTRONG®**, **RADILON®** and **RADIFLAM®** brands – a portfolio of product lines created through innovative performance- and sustainability-driven development work. Performance and sustainability are the two closely correlated features that determine the success of the products and services offered by the RadiciGroup Plastics Business Area.

SUSTAINABILITY HIGHLIGHTS.. ■ In keeping with its commitment to transparent communication with its stakeholders, RadiciGroup has published its 2014 Sustainability Report, which gives a picture of the Group's industrial activities and achievements in economic, social and environmental sustainability. The Sustainability Report was released to the public in September 2015.

■ After obtaining Environmental Product Declaration (EPD) Process Certification for its EPD process management and control system and creating and issuing EPDs for its PA6 and PA6.6 Radilon® A and Radilon® S engineering plastics, in July 2015, the RadiciGroup company Radici Novacips SpA issued the EPDs for its HERAMID® post-industrial engineering plastics and its polyamide scrap recovery service, a process to obtain the secondary raw material used in the production of the HERAMID® products.

RADICIGROUP PRESS CONFERENCE... *“RadiciGroup Plastics’ solutions for metal replacement and the electrical, water and plumbing industries.”* – **Thursday, 15 October, 11.30 PM, at Stand A1-1106** – Speaker: **Erico Spini**, Marketing & Application Development Director of RadiciGroup Plastics.

RADISTRONG® A: a feather in RadiciGroup's cap for metal replacement applications...

RADISTRONG® A is among the top RadiciGroup products developed for metal replacement applications. It is a speciality polyamide featuring technical characteristics that make it an ideal solution for critical applications requiring high performance levels not achievable by traditional engineering plastics.

“The use of engineering plastics for metal replacement is of central importance,” said **Erico Spini**,



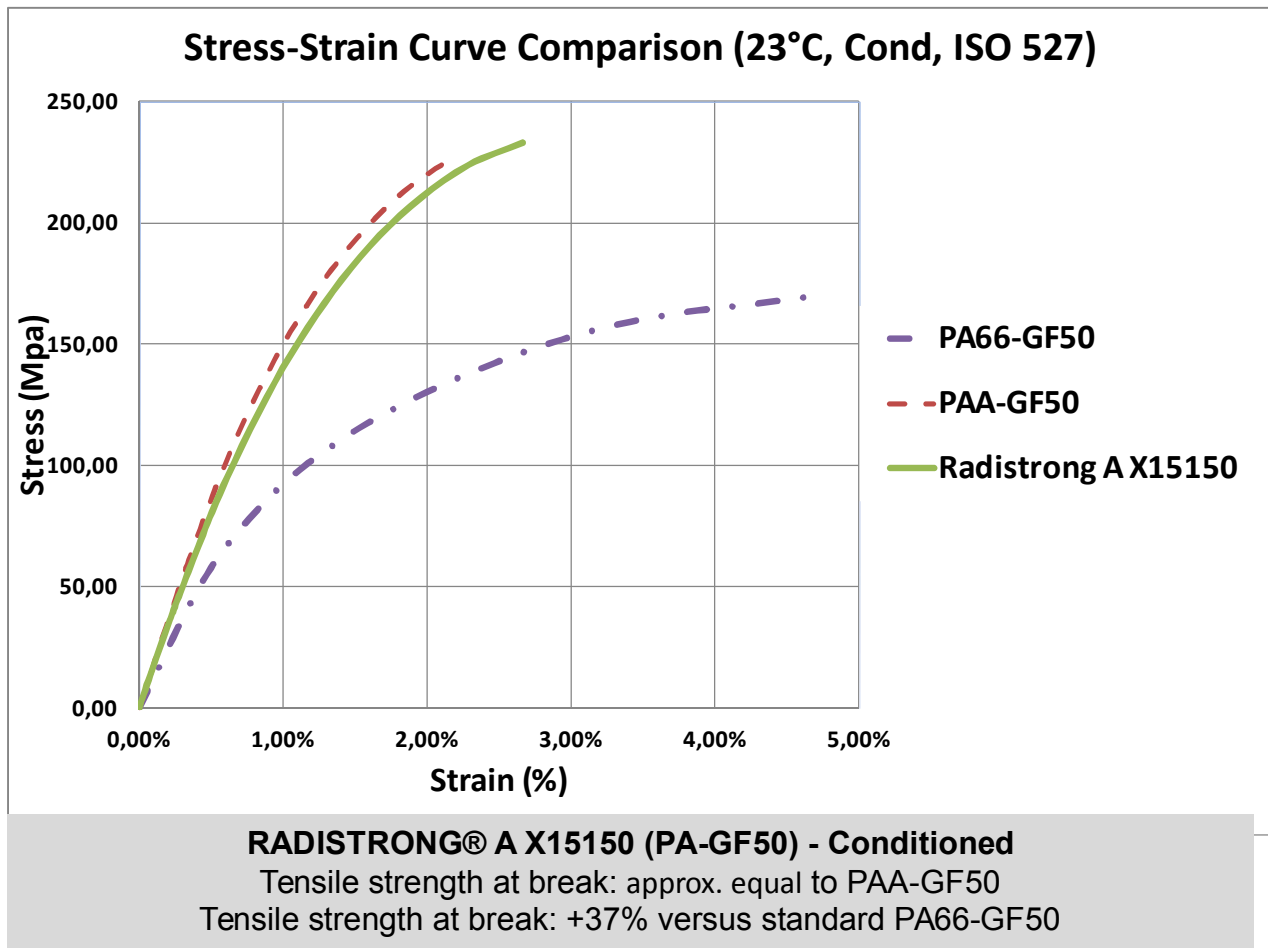
marketing & application development director of RadiciGroup Plastics. “Replacing metal assemblies with plastic ones is going to become more and more commonplace in the various industrial sectors that make up the target market for our products – automotive, electrical/electronics and machinery, to cite just a few. Using plastics means lighter weight, greater product design freedom, less wear and tear, and contributing to lowering CO₂ emissions, while achieving the best performance.”

“All these advantages translate into significant cost savings and more,” Mr. Spini continued. “Plastic parts deliver excellent technical performance, can more easily be disposed of, offer a greater opportunity for recycling and reuse, and have a longer life cycle. These are important characteristics that allow our customers and us to improve our sustainability performance. Now, RADISTRONG® A is available in the following versions: 50% or 60% glass-fibre-reinforced, black or natural colour, and heat stabilized.”

Compared to conventional polyamides, RADISTRONG® A features:

- **Superior tensile strength at break and stiffness, all the more evident after water absorption**
- **Good fluidity**
- **Excellent surface appearance**

RADISTRONG® A enhances the existing RadiciGroup range of products for metal replacement, which already includes long-fibre reinforced and high fluidity PA6 specialities and PA6.6 polymers with improved mechanical resistance. RADISTRONG® A is ideal for structural parts, such as hybrid brake pedals and suspension assemblies.



RADILON® A RKC and RADILON® D RKC: better performance in water and plumbing applications...

The development of new materials for plastic applications in the water and plumbing industry is one of the areas RadiciGroup Plastics is focusing its R&D efforts on. The RadiciGroup product portfolio comprises 30% and 50% glass-fibre-filled PA6.6 specialities, such as **RADILON® A RV300RKC** and **RADILON® A RV500RKC**, featuring enhanced resistance to hydrolytic degradation in hot water. These engineering plastics are formulated and certified for use in contact with drinking water and in applications requiring high resistance to hot water.

Additionally, RadiciGroup offers **RADILON® D RKC** thermoplastics: enhanced performance, sustainable, 30%-to-60% glass-fibre-reinforced PA 6.10 products. The base polymer PA 6.10 is partially renewably sourced polyamide with excellent resistance to hydrolytic degradation and is thus especially suitable for water and plumbing applications.

Thanks to their key characteristics –

- Excellent hydrolysis resistance
- Good dimensional stability
- Excellent chemical resistance
- Good ease of processability and safety –

RADILON® D RKC PA 6.10 specialties are ideal replacements for brass or speciality polymers (PPA and PPS) for the manufacture of plumbing fittings, valve components, taps and other parts in continuous contact with water.



RADILON® A RV300RKC

Application: HEATING SYSTEM MANIFOLD

New addition to the RADIFLAM® flame retardant product range targeted at the electrical/electronics sector ...

At Fakuma 2015, RadiciGroup is also showcasing **RADIFLAM® ARV250 HF 3003 BK**, its latest addition to the halogen- and red-phosphorus-free flame-retardant RADIFLAM® product line mainly targeted at the electrical market. This flame-retardant UL94 V-0-rated material, developed for solar photovoltaic power applications, was officially introduced last May at PLAST 2015 in Italy. Besides flame retardancy, the performance characteristics of this 25% glass-fibre-reinforced PA6.6 include good mechanical properties and high resistance to UV rays, weathering and hot/humid cycles.

RADIFLAM® ARV250 HF 3003 BK also endows components with a good surface appearance. It is ideal for applications under severe hygrothermal conditions, high humidity and temperatures of up to 80 - 85°C. An example of this kind of application is a solar panel inverter housing, which is subject to harsh hygrometric and thermal conditions and must ensure the proper operation of the

electronic boards inside under all conditions and for a long period of time. The specific RADIFLAM® ARV250 HF 3003 BK formulation guarantees that there are no emissions that could damage board circuitry components and provides excellent protection with increased reliability and safety.

Sustainability highlights ...

September 2015: RadiciGroup has once again lived up to its commitment to transparent communication with its stakeholders by releasing its 2014 Sustainability Report, which gives as faithful as possible a picture of the Group's industrial activities and achievements in economic, social and environmental sustainability.



For the fourth year in a row, the RadiciGroup Sustainability Report has obtained external assurance at the GRI B+ Application Level of conformity to the Sustainability Reporting guidelines (Ver. 3.1) issued by the Global Reporting Initiative, the most widely accepted global standard for non-financial reporting.

Concrete actions and results on the sustainability front: a few figures...

128 million euros: Investments during the 2010-2014 period to support Group company competitiveness through: research and development, product and service innovation, plant and technology maintenance and introduction of the best available technologies (BAT), improvement in production efficiency, improvement in product and service quality, assurance of employee health and workplace safety.

2.5 million euros: Investments in 2014 just for the environment and safety.

-26%: Percentage reduction in total direct and indirect greenhouse gas emissions in 2014 compared to 2013. The percentage reduction in total direct emissions in 2014 was -46%. The percentage reduction in total direct emissions in the 2010-2014 five-year period was -78%.

45.3%: The percentage of RadiciGroup's 2014 energy consumption from renewable resources (mostly hydroelectric energy). In 2013, the percentage was 44.3%.

63%: The percentage of water saved in 2014.

July 2015: After obtaining EPD Process Certification for its EPD process management and control system, and creating and issuing EPDs for its PA6 and PA6.6 Radilon® A and Radilon® S engineering plastics, Radici Novacips SpA, the headquarters of the RadiciGroup Plastics Business Area, issued the EPDs for its HERAMID® post-industrial engineering plastics and its polyamide scrap recovery service, a process to obtain the secondary raw material used in the production of the HERAMID® products. The two EPDs – available on the Environdec website at [EPD HERAMID®](#) and [EPD Polyamide Scrap Recovery Service](#) – are further tangible examples of how RadiciGroup follows the principles of consistency and transparency in the implementation of its sustainability programme: more specifically, the objective measurement and communication of the environmental impact of its products and services.

What does sustainability mean to RadiciGroup?

Concrete consistent actions.

IN THE PLASTICS INDUSTRY, RadiciGroup is one of the most highly regarded manufacturers of polyamide and polyester engineering plastics for applications in many industries such as: AUTOMOTIVE – ELECTRICAL AND ELECTRONICS – TECHNICAL INDUSTRIAL – FURNISHINGS – CONSUMER GOODS – SPORT. With six plants strategically located in Italy, Brazil, the United States, Germany and China, RadiciGroup Plastics offers processing, quality control, research and development, and technological development support. A network of sales units – with a strong presence in Italy, Germany, France, Spain, Great Britain, the USA, Brazil, China and India – makes RadiciGroup Plastics a truly global organization, capable of meeting the needs of its customers worldwide.

WWW.RADICIGROUP.COM/PLASTICS

RADICIGROUP - Production and sales sites in Europe, North America, South America and Asia. Diversified businesses focusing on chemicals, plastics, synthetic fibres and nonwovens. Know-how. Vertically integrated nylon production. Constant commitment to guaranteeing its customers quality, sustainable innovation and reliability. All this is RadiciGroup, a leader in nylon chemicals. RadiciGroup products are used in applications such as: APPAREL – FURNISHINGS – AUTOMOTIVE – CONSUMER GOODS – CONSTRUCTION – ELECTRICAL AND ELECTRONICS – HOUSEHOLD APPLIANCES – SPORT. RadiciGroup, with its Chemicals, Plastics, Synthetic Fibres and Nonwovens Business Areas, is part of a larger industrial group that also includes textile machinery and energy businesses.

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