

PRESS RELEASE

Frankfurt, 11-13 June 2013

For immediate release

RadiciGroup technical yarn portfolio takes centre stage at Techtextil 2013.



During Techtextil 2013 (Frankfurt, 11-13 June), leading event for technical fabrics and nonwovens, RadiciGroup is focusing on some of its most recent developments.

HIGHLIGHTS

NYLON YARN

- **Radilon® PA6.10**, a new nylon yarn with a smaller environmental footprint, achieved through the use of 64% renewable source polymer of biological origin.
- **Raditeck® Fine**, this range of fine-count, high-tenacity PA66 yarn has been enhanced with new air-textured items.

POLYESTER YARN

- **Rad yarn® and Starlight® Trace Micro Taggant**, polyester yarn with anti-counterfeiting, tracing capabilities.
- **Rad yarn® and Starlight® UV Protection**, polyester yarn with sunscreening properties.

Moreover, at Techtextil RadiciGroup is showcasing: **Raditeck® DoubleSix**, high-tenacity PA66 yarn ideal for automotive and industrial applications; **Raditeck®** acrylic yarn versions – AC (for anti-cracking concrete and mortar), RF (for fibre cement products) and High Performance (for industrial uses); **Radilon® staple fibre** and **Dorix®** solution-dyed PA6 staple fibre; **Radilon®** solution-dyed PA6 continuous filament yarn; and lastly **Rad yarn®** and **Starlight®** high-performance polyester yarn and microfibre.

Radilon® 6.10: sustainable performance for your products ...

... A yarn made of 64% renewable source polymer of biological origin. A product that ensures both a high degree of sustainability and excellent performance.

This environmentally friendly product is one of the most recent results of RadiciGroup's sustainable innovation strategy. "Following last year's launch of our nylon 6.10 staple fibre," **Filippo Bona**, of *Radici Yarn's R&D Department*, said, "we have achieved another important development using a polymer of biological origin. Starting this year, we have expanded our Radilon® line of continuous filament yarn to include not only PA6 and PA66-based products, but also a PA6.10 version."

"The biological content and technical characteristics of this new Radilon® PA6.10 product make it the ideal yarn for high performance technical fabrics," Mr. Bona continued. "It offers comfort, light weight, less water absorption, resistance and colourfastness. All these properties, plus less environmental impact. The sustainability aspect is becoming more and more important and, for this reason, our entire yarn production chain has been concentrating on it for some time."

The new Radilon® PA6.10 yarn range is made from a polymer developed and produced by **Radici Chimica SpA**, RadiciGroup's Italian chemical facility. Vertical integration of polyamide 66 production is a well-known strong point of the Group.



"We have been producing high volumes of this new polymer since May of last year, and market response has been very good," **Nicolangelo Peduto**, of *Radici Chimica's R&D Department*, stated. "Firstly, compared to other long-chain polyamides, it is a highly competitive material in terms of cost/performance. In all products – from yarn to staple fibre and engineering plastics – polymer 6.10 maximizes technical performance and contributes to reducing the environmental impact of specific applications on account of its renewable source content. Therefore, it ensures performance and sustainability. This is the winning combination to stay competitive in today's market. And that's a fact."

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Radilon® PA6.10 ensures sustainability

- This new yarn is made of PA6.10 polymer, which is manufactured from **sebacic acid** (64% by weight) and hexamethylenediamine, an intermediate whose production is directly controlled by RadiciGroup. Sebacic acid is a material of biological origin obtained from the seeds of the castor oil plant (*Ricinus communis*). The plant is cultivated, mostly in China and India, in arid conditions and does not require irrigation. Hence it saves water, a precious resource, and does not compete with agricultural products for human consumption.
- Life Cycle Assessments (LCAs), measuring the GWP of PA6.10 polymer in particular, have shown that CO₂ emissions (per kilogram of product) during the production of PA6.10 yarn are lower than for traditional polyamides.

Raditeck® Fine: new air-textured products.

RadiciGroup's line of fine-count, high-tenacity PA66 yarn has been enhanced with new Taslan items. In addition to ensuring the traditional high-tenacity performance needed for technical applications – highest abrasion resistance, superior light stability and long life under the most severe conditions –, the new air-textured items provide greater bulk and a cotton look and feel. They are ideal for technical textiles used in the manufacture of technicalwear and sporting goods, such as sails, hot-air balloons and parachutes. Raditeck® Fine yarn is available in three different counts: 90, 190 and 360 dtex.

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polyester

FOCUS ON...

Radyarn® and Starlight®: tracing and sunscreening polyester yarn.

At Techtextil RadiciGroup is focusing on two items from the **Radyarn®** and **Starlight®** polyester technical textile ranges: Radyarn®/Starlight® Trace Micro Taggant traceable, anti-counterfeiting yarn and Radyarn®/Starlight® UV Protection sunscreen yarn.

“At the Frankfurt event this year, we want to highlight two new specialities for technical textiles,” said **Daniele Dossi**, *quality manager of Noyfil SA*. “We were able to develop these items because of our in-house technology. Our Trace yarns boast permanent traceability, which is mainly used to combat counterfeiting. When the yarn is incorporated into textiles, it allows for tracking the items without altering their look, feel or other properties. It's like having a bar code in the fabric – polyester that is traceable through all processing stages.”

TECHNICAL SPECIFICATIONS – Radyarn®/Starlight® Trace Micro Taggant

Composition	100% polyester (PES)
Type	Textured or flat yarn: HOY, FDY - POY
Functionality	Permanent traceability with MICRO TAG
Colours	Raw or solution-dyed
Final count range	78 - 330 dtex
DPF Range	3.0 - 4.8 dtex

Radyarn®/Starlight® UV-protection yarn, on the other hand, is ideal for manufacturing total protection sunscreen fabric, due to its superb UV-radiation reflection and absorption properties,” Mr. Dossi continued. “Our UV-protection yarn also offers high performance in resistance, colourfastness, life and abrasion resistance.”

TECHNICAL SPECIFICATIONS – Radyarn®/Starlight® UV Protection

Composition	100% polyester (PES)
Type	Textured or flat yarn: FDY - POY
Functionality	Permanent UV protection
Colours	Raw or solution-dyed
Final count range	55 – 330 dtex
DPF range	1.6 – 4.8 dtex

For further information: petyarn.fibers@radicigroup.com

At Techtextil RadiciGroup is also showcasing ...

Raditeck® DoubleSix...

Owing to its performance characteristics, this line of RadiciGroup PA66 high-tenacity yarn is ideal for applications in the automotive industry (airbag fabric, tyre cord, transmission belts, plumbing pipe reinforcement) and the industrial sector (rubber reinforcement, hoses and conveyor belts, oleodynamic systems, peel-ply fabric). Available in the following counts: from 470 to 700 dtex for airbag fabric; from 940 to 2100 dtex for tyre cord; and up to 2820 dtex for rubber reinforcement (MRG).

Raditeck® versions: AC, RF and High Performance ...

RadiciGroup Raditeck® acrylic fibre is available in the following versions:

- **Raditeck® AC** used as anti-cracking reinforcement for concrete and mortar.
- **Raditeck® RF** used in fibre-cement products.
- **Raditeck® High Performance** for industrial uses.

Solution-dyed Radilon® staple fibre, dorix® and Radilon® ...

From staple fibre to continuous textile yarn, RadiciGroup brings a wide range of solution-dyed products to the technical textiles market. Available in a rich variety of counts and colours, all these products stand for quality, safety and production flexibility. What is more: sustainability. As the dyeing is done during the initial stage of the extrusion process, the products do not need additional finishing processes downstream. This means savings in water usage and wastewater treatment costs. Therefore, solution dyeing not only ensures good product performance but also safeguards the environment.

Radyarn® and Starlight®: a complete range of polyester yarns for technical textiles applications.

Radyarn® and Starlight® polyester yarns for technical textiles are available in a wide range of counts and winding supports and can meet the needs of application sectors such as automotive, technical/industrial, medical, furnishings/household and marine. For each of these sectors, RadiciGroup offers solution-dyed and raw polyester yarns featuring high performance, quality, safety and sustainability. Radyarn® and Starlight® are ideal for **auto interiors** (seat upholstery and trim), for **technical/industrial** applications (compost bin liners, filter brushes, industrial filters and anti-static fabric) and **medical** uses (nonwovens for sterile rooms, bandages and sterile gowns). For markets such as **furnishings / household** (awnings, indoor-outdoor furnishings and dust cloths), **contract furnishings** (flame-retardant fabrics for hotels, cinemas and other large complexes) and **marine** (boat covers), RadiciGroup offers stabilized polyester yarns resistant to solar radiation. These products guarantee colour stability and fastness, as well as residual resistance after exposure, comparable to traditional acrylic products, while eliminating the typical disadvantages of the latter. Furthermore, Radyarn® and Starlight® polyester yarns offer total versatility in all solution-dyed PET versions and no degradation during maintenance treatments. They also ensure safety and respect for the environment along the entire production process.

FOR THE TECHNICAL TEXTILES SECTOR, RADICIGROUP ALSO OFFERS ...

CRYLOR®

Fibre and acrylic top for technical apparel and household interiors.

RADIGREEN®

Polyolefin and polyamide yarns for artificial grass used for sports fields, household applications and landscaping.

DYLAR®

Polypropylene spunbond nonwovens ideal for applications in sectors such as sanitary, roofing, medical, furnishings and agriculture.

WWW.RADICIGROUP.COM/FIBRES

RADICIGROUP

Production and sales sites in Europe, North America, South America and Asia. Diversified businesses



focusing on chemicals, plastics and synthetic fibres. 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, sports, furnishings, automotive, electrical/electronics, home appliances and consumer goods. WWW.RADICIGROUP.COM

RadiciGroup, with its Chemicals, Plastics and Synthetic Fibres Business Areas controlled by parent company

Radici Partecipazioni SpA, is part of a larger industrial group that also includes textile machinery and energy businesses. WWW.RADICI.COM

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