



PRESS RELEASE

Frankfurt am Main, 4 – 7 May 2015

RadiciGroup for technical textile applications:
a full product range at Techtexsil 2015.

RadiciGroup is back at TECHTEXTIL – a leading international trade fair for technical textiles and nonwovens, from 4 to 7 May 2015 in Frankfurt, Germany – with a strong portfolio of products and brands.

- **RADYARN® AND STARLIGHT® POLYESTER YARN:** from conventional flame retardant, UV-stabilized and bacteriostatic products, to the innovative new Ceramic line.
- **RADILON®, DORIX® AND RADITECK® POLYAMIDE YARN AND STAPLE:** PA6 and PA6.6 yarn (Radilon®) - PA6 staple fibre (Radilon® and DORIX®) - PA6.10 yarn and staple fibre (Radilon® 6.10 and DORIX® 6.10) - high tenacity PA6.6 yarn (RADITECK® DoubleSix and RADITECK® Fine).
- **DYLAR® SPUNBOND NONWOVENS:** Anti-UV and UV Plus spunbond nonwovens and flame-retardant spunbond nonwovens.
- **RADIPOL® POLYAMIDE POLYMERS:** reduced environmental impact polyamides such as PA6.10 - PA6.12 long-chain polyamides - high-temperature-resistant polyamides - a line of innovative metal detectable products.

STARLIGHT® AND RADYARN® POLYESTER YARN TAKE CENTRE STAGE AT TECHTEXTIL...

Radyarn® and Starlight® take centre stage in Frankfurt. RadiciGroup is focusing on four polyester yarn families: conventional Flame Retardant, UV-Stabilized and Bacteriostatic, and the innovative Ceramic.

Radyarn® and Starlight® FR...

Introduced within the context of the [FR Total Care](#) project, these continuous filament yarns feature intrinsic flame-retardant properties and are ideal for applications in the indoor and outdoor textile and contract sectors. Radyarn® and Starlight® FR are available in solution-dyed, antibacterial and/or UV-stabilized versions and endow fabrics with important functionalities: **high performance, safety, softness, breathability and colourfastness, as well as the highest quality.**

FR Total Care is an important project involving the collaboration of several companies in the synthetic fibres industry – including RadiciGroup's *Noyfil SA* and *Noyfil SpA* –, which teamed up and pooled their know-how with a very clear objective: to offer the best flame retardant solutions on the market, a complete line of FR products and services combining high performance, functionality, safety, customization, cost efficiency and sustainability. Furthermore, FR Total Care stands for technical expertise and innovation; specialized advice on fabric construction, design, production and finishing; support in testing and approvals; and marketing consulting.

Radyarn® and Starlight® UV Stabilized...

Radyarn® and Starlight® UV Stabilized are top-of-the-range specialities sold by RadiciGroup, a leading European manufacturer of continuous polyester filament with two production sites in Italy (*Noyfil SpA*) and one in Switzerland (*Noyfil SA*). These high-performance filaments have anti-UV properties that make them the ideal solution for the manufacture of fabrics for applications in the awnings, outdoor furnishings and marine sectors.

Radyarn® and Starlight® UV Stabilized PET yarns give fabrics colour stability and fastness to sunlight, residual resistance after solar exposure comparable to that of traditional acrylic products, and greater dimensional stability than acrylic yarn. Indeed, Radyarn® UV Stabilized yarn prevents unsightly creasing, waviness, and deformation over the entire fabric surface and along the seams.

Know-how, vertical integration and total production control from spinning to downstream processing are the strengths that allow RadiciGroup to tailor its products to meet its customers' needs in an efficient way. Vertically integrated production is the key to customizing polyester yarn in terms of colour, formulation and functionality, so as to meet the customer's aesthetic and performance specifications simultaneously. UV Stabilized yarn can be manufactured not only from standard polyester but also from PET Flame Retardant and recycled polyester, which makes it possible to offer multifunctional products – a feature that is very much appreciated by the target markets of RadiciGroup polyester yarns.

Radyarn® UV Stabilized is also available in yarn-dyed versions for traditional and customized applications.

Radyarn® and Starlight® UV Stabilized are available in a wide variety of combinations:

- **BASE POLYMER:** dull, bright or translucent.
- **FILAMENT CROSS SECTION:** round or trilobal.
- **TYPE:** friction texturized (FTF), air-jet texturized (AJT) or twisted.

Radyarn® and Starlight® Bacteriostatic...

These polyester yarn lines are manufactured with a nanostructured silver additive incorporated into the fibre during the extrusion stage before spinning (no post-treatment needed), which endows the yarn with bacteriostatic properties that inhibit the proliferation of bacteria on the fabric.

Radyarn® and Starlight® Bacteriostatic yarns ensure complete production versatility, as they are available in all solution-dyed PET versions in combination with flame retardant FR, UV-stabilized and Ceramic.

Radyarn® and Starlight® Ceramic...

At Techtextil 2015, RadiciGroup is showcasing its new **Radyarn® and Starlight® Ceramic** polyester yarn lines designed for the development of high-quality fabrics featuring **thermoregulation** properties, in addition to high quality, colourfastness and safety.

“These ceramic polyester yarns are among our latest innovative products developed for technical sportswear,” said **Daniele Dossi**, *site quality manager of Noyfil SA*. “They are high-performance products, functionalized with natural, non-toxic ceramic compounds that endow fabrics with intrinsic thermoregulatory properties with no need for further downstream chemical finishing treatments. Thanks to their special composition, Radyarn® and Starlight® Ceramic yarns can absorb, reflect and emit heat energy in the form of

far-infrared rays (FIR) – both the FIR radiated by the sun and present in the environment, and the FIR radiated by the body through thermogenesis. This special thermoregulatory property contributes to maintaining better body thermal equilibrium and stimulates superficial microcirculation.”

“These yarns are particularly suitable for the manufacture of fabrics designed to ensure optimal comfort during intense physical activity,” Mr. Dossi continued. “As of now, we have developed these yarns in raw, white, black and solution-dyed versions in several colours according to customer specifications. Bacteriostatic versions of the Radyarn® and Starlight® Ceramic yarns are also available.”



For more information on the new Ceramic yarn line
and on the entire RadiciGroup polyester yarn range, please contact
sales.noyfilsvizzera@radicigroup.com

RADILON®, DORIX® AND RADITECK® POLYAMIDE YARN AND STAPLE FIBRE: A COMPLETE RANGE OF PRODUCTS...

Techtextil is the ultimate showcase for RadiciGroup's RADILON®, DORIX® and RADITECK® polyamide yarn and staple fibre brands. A varied product portfolio comprising PA6 and PA6.6 yarn (Radilon®), PA6 staple fibre (Radilon® and DORIX), PA6.10 yarn and staple (Radilon® 6.10 and DORIX® 6.10) and high-tenacity PA6.6 yarn (RADITECK® DoubleSix and RADITECK® Fine).

PA6 and PA6.6 Radilon® yarn: Excellence Made In Italy...

Radilon® PA6 and PA6.6 yarns stand for high quality and performance, plus a high degree of customization and sustainability. These products are available in a wide variety of counts, lustres, colours and versions. From monofilament to super microfibre, from bright to extra full dull, from flat to texturized, from raw to solution-dyed. A portfolio of products developed by RadiciGroup to best meet the application needs of the textile/apparel, technical and industrial textile sectors.

“We are constantly working on optimizing our product line,” said **Filippo Bona** of *Radici Yarn R&D*. “Just as we are constantly committed to collaborating with our customers and providing them with a complete range of services. Over the years, our Group has built up a wide product offering in keeping with our strategy to develop differentiated solutions tailored to specific application needs. Recently, we introduced two new kinds of polyamide yarns, Radilon® Mélange and Radilon® Soft, which are currently being showcased at Techtextil. The Mélange line features 100% polyamide products with technical characteristics that allow for obtaining two-tone effects while endowing the fabric with the look and feel of silk.”

“The new Soft products are a family of air-textured products combining a natural look and feel with the characteristics of polyamide fibres,” Mr. Bona continued. “These high-performance yarns are ideal for the sportswear and technicalwear sectors and are available in counts from 90 to 370 dtex. The Soft line is the result of innovative development work made possible by our synergies with Group company Radici Chimica, whose extensive know-how in the production of polyamide polymers is a competitive advantage and an important strength of our entire Group.”

Our PA6 staple fibre for industrial nonwoven applications ...

Available in a variety of counts, cross-sections and solution-dyed colours, these staple products made at the Radici Yarn and Radici Chemiefaser GmbH production sites are the ideal solution for industrial nonwoven applications.

Radilon® staple fibre and DORIX®: the polyamide staple for industrial nonwoven applications...

Nonwovens for technical uses such as interlinings, industrial felt, filters and abrasives. These are but some of the main applications for which RadiciGroup PA staple represents the best solution.

NONWOVENS AND MORE ... RadiciGroup polyamide staple fibre is used in industries such as:

TECHNICALWEAR – FASHIONWEAR – CONTRACT CARPET – AUTOMOTIVE –
TECHNICAL APPLICATIONS

PA6.10 yarn and staple: Sustainable performance...

Radilon® 6.10 and DORIX® 6.10 are yarn and staple fibre made of 64% renewable source polymer of biological origin. These are products that ensure both sustainability and excellent performance.

The biological content and technical characteristics of these PA6.10 products make them ideal for high-performance technical fabrics. They offer comfort, light weight, less water absorption, resistance and colourfastness. All these properties, plus lower environmental impact – an increasingly more important aspect on which our Group's entire yarn production chain has been concentrating for quite some time.

The new Radilon® PA6.10 products are made from a polymer developed and produced by **Radici Chimica SpA**, RadiciGroup's Italian chemical facility. This upstream vertically integrated polyamide 6.6 production is a distinctive strong point of the Group.

Radilon® 6.10 sustainability... These products are made from polyamide 6.10, a biopolymer obtained from sebacic acid (64% by weight) and hexamethylenediamine, an intermediate over which RadiciGroup has direct production control. Sebacic acid is a substance of biological origin obtained from castor oil plant seeds. This plant is cultivated, mostly in China and India, in arid environments and, for this reason, does not compete with agricultural products for human consumption.

Raditeck® high tenacity...

Raditeck® Fine... At Techtextil RadiciGroup is focusing on a line of high-tenacity PA6.6 fine-count yarns, recently enhanced with new air-textured yarns (ATY). Besides the traditional excellent high-tenacity performance characteristics that make Raditeck® Fine ideal for technical applications – such as superior abrasion resistance, light stability and long life, even under the harshest use conditions –, these air-textured products ensure greater voluminosity and a cotton look and feel.

Raditeck® Fine products are ideal for textile applications in the technical apparel sector, as well as for the manufacture of sport items, such as sails, hot-air balloons and parachutes.

Available counts: 33F10, 50F13 and 78F34 dtex

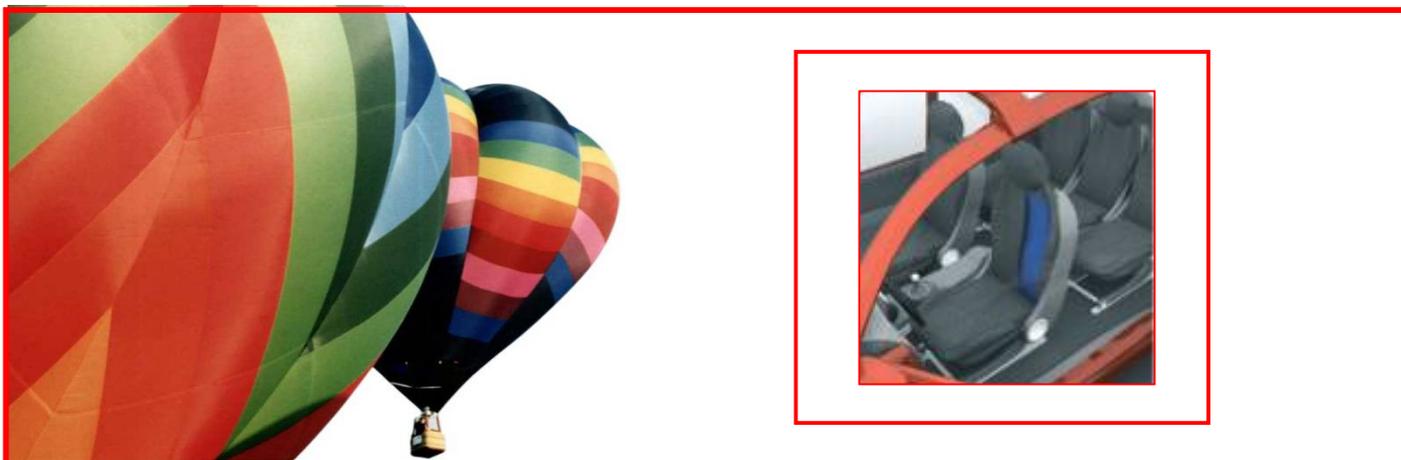
Available counts for ATY versions: 90F34, 180F68 and 360F136 dtex.

For more information on RADITECK® Fine and RADILON® and DORIX® yarn and staple lines:
fashion.fibres@radicigroup.com

Raditeck® DoubleSix... The performance characteristics of this RadiciGroup high-tenacity PA6.6 yarn make it ideal for applications in the automotive industry (airbag fabric, tyre cord, transmission belts and plumbing pipe reinforcement) and the industrial sector (rubber reinforcement for conveyor belts, hoses for oleodynamic systems and peel-ply fabric).

Available 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).

For more information: arturo.andreoni@radicigroup.com



DYLAR® SPUNBOND NONWOVEN SPECIALITIES AT TECHTEXTIL...

At *Techtextil 2015* the focus is on **Dylar® specialities**: from Anti-UV and UV Plus spunbond to Flame

Retardant nonwovens, all featuring better-than-average mechanical characteristics. The functional properties of these materials make them ideal for applications in the **roofing, automotive, filters, furnishings, agricultural and HORECA industries**, as well as for **protective clothing, single-use items and packaging**. Available in a wide range of weights, widths and additivations, Dylar® products ensure benefits such as superior quality, workability and excellent performance.

The **prized characteristics** of Dylar® that our customers rely on are its

**SUPERIOR TECHNICAL PROPERTIES:
TENSILE STRENGTH AND ISOTROPY**

High Technical Properties

Tensile Strength
is the maximum stress that a material can withstand while being stretched or pulled before failing or breaking.



Isotropy
is uniformity in all orientations, both Cross Direction (CD) and Machine Direction (MD).
In standard spunbond PP nonwovens MD > CD

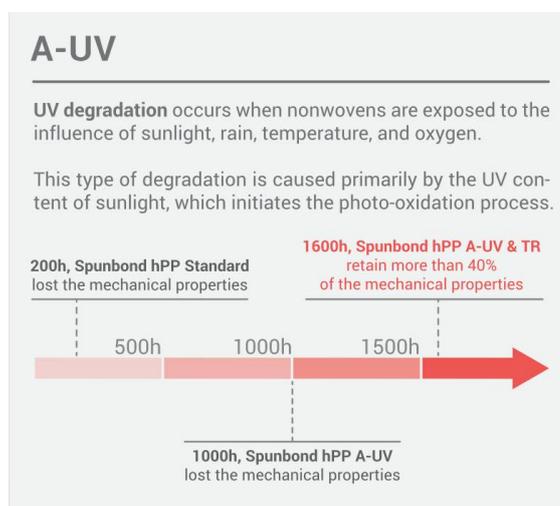


DYLAR® PP spunbond performance can reach: MD/CD=1

DYLAR® ANTI-UV AND UV PLUS...

Polypropylene spunbond nonwovens with excellent anti-UV properties especially suited for applications in

the following industries: **roofing (roofing membranes and insulating mats)** used to protect and insulate buildings) and **agricultural (sheets/cloths)** used to protect plants and land from aggressive atmospheric agents and ensure the needed moisture; **coverings for mulching** the soil around crops to prevent weed seed germination). The Dylar® UV PLUS version has a greater UV-ray protection factor than the average factor of products commonly available on the market.



DYLAR® FLAME RETARDANT...

Polypropylene spunbond nonwovens ideal for applications requiring fireproof and flame retardant characteristics. From roofing to automotive, furnishings and filters, Dylar® nonwovens with **halogen-free**

Flame retardant

Dylar® Flame Retardant PP spunbond

can prevent fires from starting or limit the spread of fire and minimize fire damage.



DIN 75200 (AUTOMOTIVE)

Determination of burning behaviour of interior materials in motor vehicles.



EN ISO 11925 (ROOFING/BUILDING)

Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame.



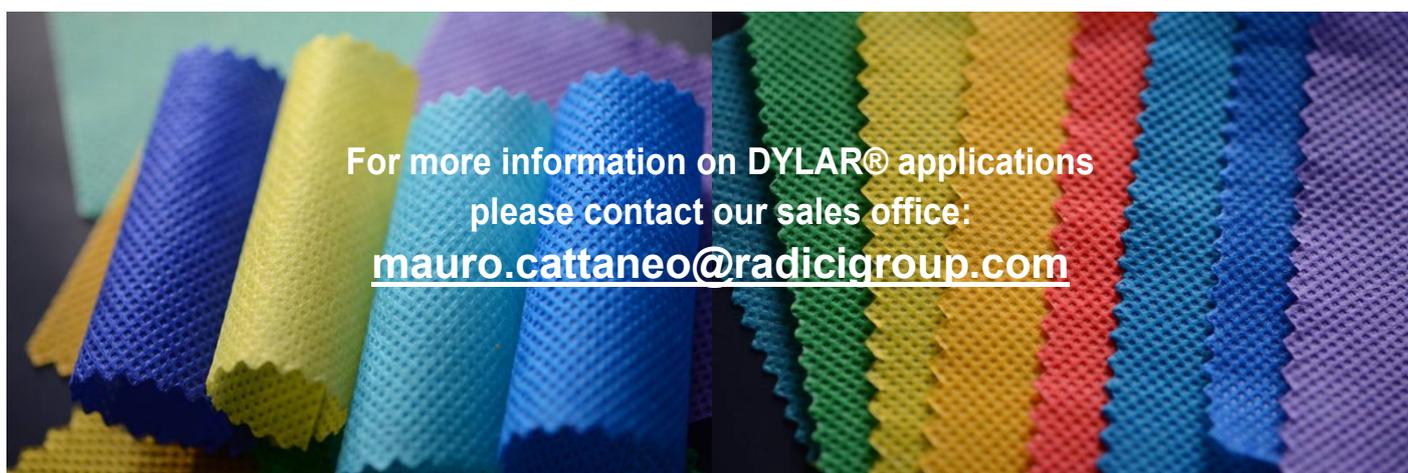
FIRA International Ltd (FURNITURE)

Furniture Industry Research Association Certification: Schedule 4 Part II & Schedule 5 Part III

HALOGEN FREE PRODUCT

flame-retardant additives ensure maximum reliability and quality, while complying with the strictest safety regulations. In collaboration with its customers, RadiciGroup develops flame-retardant solutions for all needs, by tailoring Dylar® functionalities to specific customer requirements. In RadiciGroup FR target markets, nonwovens are a semi-finished product, which our customers process and assemble differently from one another depending on their final applications. RadiciGroup can tailor the

semi-finished product by developing the best solution in terms of quality, performance and price for each specific use.



For more information on DYLAR® applications
please contact our sales office:
mauro.cattaneo@radicigroup.com

WATCH [DYLAR® SPECIALTIES VIDEO](#)
LEARN ABOUT [DYLAR® APPLICATIONS](#)

OUR VERTICALLY INTEGRATED RAW MATERIALS? RADIPOL® POLYAMIDE POLYMERS.

For the first time at Techtextil, RadiciGroup is showcasing its RADIPOL® polyamide polymer range: from reduced environmental PA to long-chain PA6.12s and high-performance, high-temperature resistant polyamides. Lastly, a line of innovative metal-detectable products.

RADIPOL® REDUCED ENVIRONMENTAL IMPACT POLYAMIDES ...

A range of polyamides made from 50% to 64% to 100% natural renewable source materials.

RADIPOL® 6.12 LONG-CHAIN POLYAMIDES ...

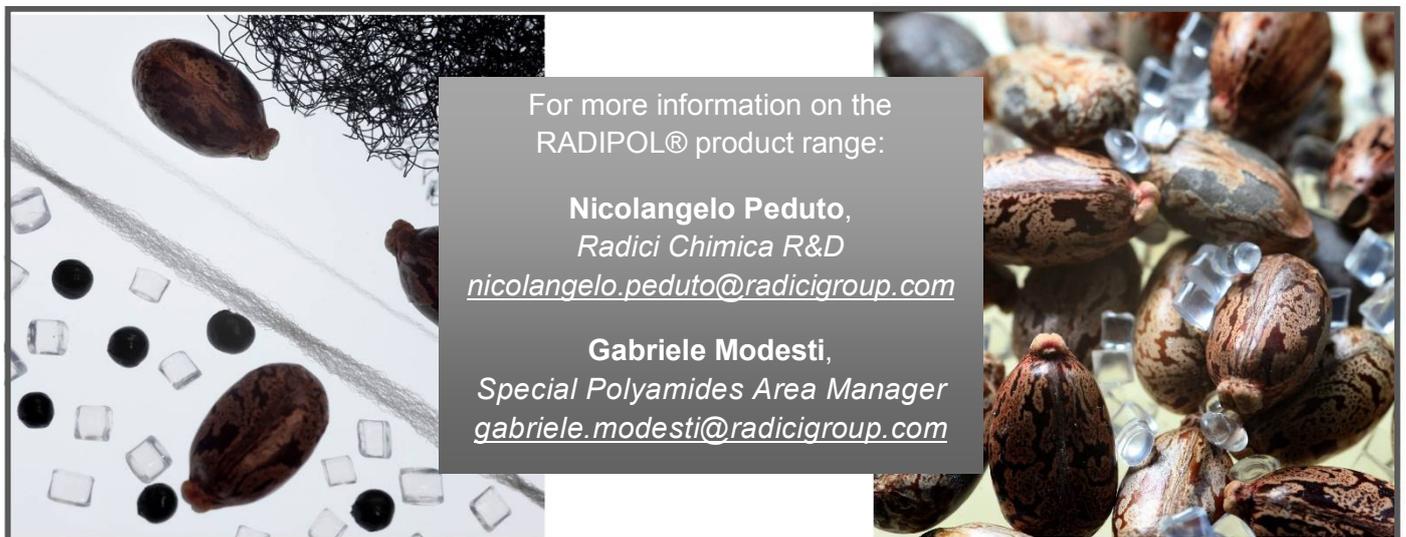
Polyamide 6.12 featuring low water and moisture absorption, high resilience, excellent chemical resistance and good elastic recovery.

RADIPOL® HIGH TEMPERATURE RESISTANT POLYAMIDES ...

High-performance polyamides developed for continuous service temperatures of up to 230° C.

RADILON® METAL DETECTABLE PRODUCTS ...

Innovative line of metal-detectable products, developed for food industry applications.



For more information on the RADIPOL® product range:

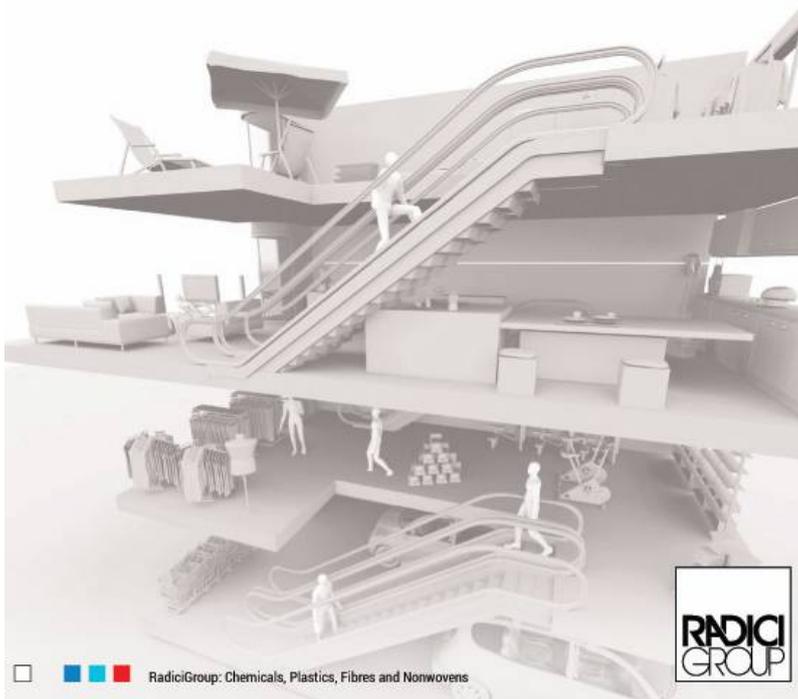
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RADICIGROUP

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.

WWW.RADICIGROUP.COM



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