

For immediate release

Frankfurt (Germany), 11 - 14 January 2012 RadiciGroup polyester yarns at Heimtextil 2012

Come and see us 3.0 Stand E60

11. – 14. 1. 2012



heimtextil

At Heimtextil 2012, the international trade fair for home and contract textiles, RadiciGroup companies **Noyfil SA** and **Noyfil SpA** – leading European manufacturers of a wide range of polyester yarns – are exhibiting their product portfolios.

The focus is on:

*r-Starlight *

Polyester yarn produced from post-consumer recycled polymer.

Flame-retardant polyester yarn available in solution-dyed and bacteriostatic versions.

RadiciGroup is also showcasing the following lines at the fair: **Starlight® feel** yarn incorporating a silver nanocompound to provide bacteriostatic properties, **CornLeaf** solution-dyed yarn with antimicrobial functionality made from Ingeo[™] polylactic acid (PLA) biopolymer, **RADYARN® FR** flame-retardant yarn, **STARLIGHT® UV-GUARD** anti-UV yarn, **MICRALON®** PES/PA two-component yarn, and **MICRELL®** microfibre.

At the Heimtextil trade fair from 11 to 14 January 2012, RadiciGroup is exhibiting its product range for the home and contract textile markets. Yarn lines that were developed to meet any request, requirement and application need: yarn produced from post-consumer recycled polymer or made from polylactic acid biopolymer; microstructured yarn; yarn with flame-retardant, anti-UV and bacteriostatic/antimicrobial properties; and two-component yarn. Thanks to its superior quality level, production know-how and expertise in innovative production and processing technologies, the Group can provide its customers with state-of-the-art, high value-added products.

RadiciGroup customers are demanding ever more innovative products. They want high-quality, highperformance customized yarn that enables them to make technologically advanced fabrics. That is why, in the yarn design stage, RadiciGroup allows customers to choose the count, lustre, quantity and type of yarn they need. Colour can also be totally customized. Furthermore, customers can select any combination of additional features. RadiciGroup can supply multi-functional yarn produced with a mix of additives to give the yarn various performance characteristics, such as flame-, UV ray- and/or bacterial-resistance, as well as with solution dyeing. During the design stage, the customer has no limits. Innovation, quality and sustainability: these are the distinctive traits of RadiciGroup.

"Innovation is a strategic factor in maintaining and strengthening competitiveness in the sectors where we operate," Roberto Parenzan, site manager of Noyfil SA, said. "Today, in the textile clothing industry, innovation is one of the necessary prerequisites if we want to stay in business in an increasingly unstable, competitive and aggressive market. For this reason, it is of fundamental importance to focus on developing technologies and products that meet specific customer requests. We have recently introduced ecocompatible materials, such as CornLeaf yarn made with a biopolymer obtained from Ingeo[™] polylactic acid (PLA), a 100% renewable vegetable source material, and polyester yarn produced from post-consumer recycled polymer. And we are now working on developing new multi-functional yarns incorporating various performance characteristics achieved through a combination of additives. For the outdoor furnishings sector, for example, we are developing a solution-dyed, flame-retardant, UV ray-resistant, antibacterial yarn. Additionally, a flame-retardant yarn manufactured from recycled PET polymer is presently in the design stage."

At Heimtextil, the spotlight is on ...

r-Starlight®

The new brand name for RadiciGroup eco-sustainable polyester yarn produced from post-consumer recycled polymer...



T-Starlight r-Starlight® yarn – previously sold under the REvive brand *name* – is produced from post-consumer recycled polymer. The

production process starts with post-consumer recycled PET bottles, which are sorted, washed and shredded into chips. The chips are then de-polymerized and polymerized again into granular form. The polymer granules obtained are then used for the production of fibres or as the raw material for the spinning process.

The r-Starlight® product line includes various weights, counts, colours and lustres, as well as textured and Taslan versions. A variety of cross-section shapes - from standard ones (round and trilobal) to special ones (multilobal, multichannel and hollow trilobal) - are available.

Solution-dyed r-Starlight® yarn provides an even higher degree of sustainability: in addition to being produced from recycled materials, the yarn can be solution dyed during extrusion. This technology means a significant decrease in both energy and water consumption, over and above savings in discharge treatment costs.

Thanks to production flexibility, which is a hallmark of the Noyfil SA plant, r-Starlight® yarn can be produced according to customer specifications – even in small lots (minimum production lots start at 200 kg) – in a great variety of colours (about 6,000). Furthermore, Noyfil SA offers a custom sample service. r-Starlight® yarn is also available in bacteriostatic (**r-Starlight® feel**) and anti-UV (**r-Starlight® UV-GUARD**) versions.

These characteristics make the RadiciGroup r-Starlight® yarn line ideal for the **furnishings** sector, particularly for *curtains, linings, upholstery, trimmings and braids.*

r-Starlight® yarns are also used in many other applications: apparel (sportswear, fashion, intimatewear and hosiery), automotive (seat upholstery, liners and door upholstery), technical/industrial (filters, nettings and ropes) and medical (bacteriostatic fabric, elastic bandages and body contouring items/support hose).

Starlight® FR

The Starlight® FR yarn line is ideal for applications in the textile furnishings and contract sectors (coverings for armchairs, divans and mattresses, curtains, tablecloths and place mats). The yarns are available in solution-dyed and bacteriostatic varieties with flame-retardant properties incorporated into the polymer that



can withstand post-spinning treatments. In fact, the phosphorous compound endowing the yarn with flame retardancy is added during the spinning process. This ensures that the flame-retardant properties remain intact during downstream processes such as weaving, dying and finishing. Moreover, the property is resistant to

any deterioration that might be caused by typical fabric maintenance treatments.

Technology...

- Use of high quality Zeroxy[™] flame-retardant polymer made by HUVIS.
- Yarn produced with the Starlight SY spin-drawing technology.
- Solution dyeing: dyes are added during extrusion, which results in excellent colour uniformity, endurance over time and colourfastness.
- In-house (Noyfil SA) handling and preparation of dye recipes.
- Solution additivation: additives for other performance characteristics are also added during extrusion and thus are permanently incorporated into the yarn.
- Production plant modularity makes small lot production possible.

Starlight FR yarn is tailor-made according to customer specifications. The customer can define the count, lustre, colour, quantity and type (POY, textured, Taslan, flat) of the yarn, as well as the desired combination of additional performance characteristics. Customization is the key word.

At Heimtextil RadiciGroup is also showcasing *Starlight*® *feel*, *CornLeaf*, *RADYARN*® *FR*, *STARLIGHT*® *UV-GUARD*, *MICRALON*® and *MICRELL*®.

Starlight® feel

The new brand name for RadiciGroup bacteriostatic yarn incorporating a silver microcompound additive...

Starlight During the manufacture of Starlight® feel yarn, a silver microcompound is incorporated into the fibre matrix in the extrusion stage before the spinning process, so no post-treatment is required. The silver microcompound gives the yarn bacteriostatic properties that reduce bacterial proliferation in fabrics. This product line ensures total production versatility: all solution-dyed versions are available in combination with flame-retardant FR and UV-stabilized features. The bacteriostatic effectiveness of this fibre is certified in accordance with ISO 20743:2007. Starlight® feel bacteriostatic functionality is obtained using HeiQ materials.

Compared to traditional products, Starlight® feel guarantees:

- <u>Better colourfastness</u>: no colour change thanks to colour pigment masters added during extrusion and the new-generation active ingredient, which is not subject to oxidation.
- <u>Prevention of bad odours caused by microorganisms</u>: since bacteria proliferation is inhibited even after repeated washing, the effect of the microorganisms is minimized.
- <u>Long-term efficacy and wash resistance</u>: silver ion microparticles ensure longer efficacy, far superior to the other products tested.
- <u>Low environmental impact</u>: no need for special yarn finishing processes downstream, which would require high consumption of water and energy.
- <u>No deterioration of the yarn's mechanical properties</u>: the incorporation of the active agent does not alter the mechanical properties of the fibre, nor does it hinder textile processing downstream in any way.

Recently, RadiciGroup companies Noyfil SA and Noyfil SpA have supplied **Starlight® feel** yarn to **AMICROTEX**, a project financed through POR FESR 2007-2013 (European funds for regional development)



and initiated with the goal of developing an innovative range of antimicrobial textiles. These fabrics, which are designed to reduce bacterial contamination and nosocomial infections, will be certified through in vitro and clinical tests for use in the medical and surgical environment. AMICROTEX is a partnership initiative involving operators in the textile chain: yarn manufacturers (RadiciGroup), weavers (Tiba Tricot Srl,

Tessitura Lazzati SpA and Leucadia SpA), garment manufacturers (Alsco Italia SrI), laundries, consulting companies (Ecoconsult SrI), scientific institutions and hospital centres (Fondazione Centro San Raffaele and

Gruppo Ospedaliero San Donato Foundation), all of which are committed to making their contribution to the development and marketing of innovative anti-bacterial fabrics for use in the medical/health care field.

Antimicrobial efficacy and duration were tested according to the methods specified in ISO 20743 and JIS1902 (Textiles and absorbent articles). Articles were graded according to the system for assessment of antimicrobial efficacy devised by the German Hohenstein Research Institute. The test results for antimicrobial efficacy place Starlight® feel in the "strong" class (the highest possible in the Hohenstein Research Institute system), even after repeated washing of the textile articles (up to 300 washes at 40°C).

AMICROTEX: Project 13587782 cup E7I0000090007 - ATP Competition 2009, co-financed by the European Union, the Italian Government and the Region of Lombardy, in accordance with Commission Regulation EC 1828/2006, Council Regulation EC 1083/2006 and the rules set forth by the Region of Lombardy.

CornLeaf

Solution-dyed yarn with antimicrobial functionality, made from Ingeo[™] polylactic acid (PLA) biopolymer, an innovative 100% natural material produced from renewable vegetable resources...

The properties of this solution-dyed yarn make it 100% biodegradable, and the production process fully



meets eco-sustainability requirements, such as the lowering of CO2 emissions and reduced water and energy consumption. Solution dyeing integrated into the spinning process allows for producing Cornleaf with less water and energy consumption compared to more

traditional dyeing and finishing processes. This product is available in a wide range of highly lightfast washresistant colours. Antimicrobial functionality is achieved by incorporating a special silver-based nanocompound into the yarn as an antimicrobial agent. Cornleaf's bacteriostatic functionality is ISO 20743:2007-certified and is obtained using HeiQ materials. The compound was specifically developed so as not to compromise the compostability of the Ingeo[™] PLA biopolymer. Cornleaf yarn combines the advantages of natural and synthetic fibres: lightness, tenacity, comfort, UV-resistance and safety.

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RADYARN® FR

Flame-retardant yarn with flame retardancy characteristics incorporated into the polymer, thus capable of withstanding post-spinning treatments. Like Starlight® FR, this yarn line is ideal for applications in the furnishings and contract textile sectors.

STARLIGHT® UV-GUARD

Starlight® UV-Guard yarn is a PET polymer that is stabilized against polymer chain deterioration caused by UV radiation. The anti-UV function is incorporated into the polymer and is thus an intrinsic property. Starlight® UV-Guard yarns ensure: colour stability and fastness; residual resistance after exposure, comparable to that of traditional acrylic products without the drawbacks of such material; no deterioration during maintenance treatments; and the absence of harmful substances. Starlight® UV-Guard is Oeko-Tex standard 100 Class 1-certified. Combining Starlight® UV-Guard characteristics with Starlight® feel bacteriostatic characteristics yields a product (UV-Guard + Starlight® feel) that has anti-UV plus fungicidal properties. Adding Starlight® feel fungicide and anti-mildew functionalities to Starlight® UV-Guard yarn actually improves the performance of the product. The advantage of the Starlight® UV Guard + Starlight® feel combination is that it noticeably increases the yarn's resistance to weathering.

LABORATORY TESTS...

Laboratory tests clearly show that Starlight® UV-Guard exhibits superior resistance to solar radiation over the traditional fabrics commonly used. If we compare, for instance, electronic scanning images of yarn after sun exposure for an equivalent 2.5 years (Florida) according to the ISO105-B4 standard, Starlight® UV Guard yarn looks much less deteriorated than any of the other standard PET yarns.

Fabrics made with Starlight® UV Guard also prevent the formation of undesirable wavy patterns, creases and deformation on the fabric surface and along seams.

MICRALON®

Micralon® is an 80% polyester-20% polyamide matrix. It is made up of 75 filaments, 8 of which are polyester. During finishing, the number of filaments expands from 8 to 600, which gives the fabric excellent characteristics in terms of hand, bulk, appearance and performance. Micralon® is ideal for producing velour and peach-skin fabrics.

MICRELL®

Polyester microfibre available in raw-white, solution-dyed and flame-retardant versions. Combining this fibre with other natural and/or synthetic fibres allows for producing a wide range of comfortable, light, and breathable fabrics with a particularly soft feel.

For more information: andre.borgis@radicigroup.com www.radicigroup.com/fibres

RADICIGROUP_With 2010 consolidated sales of EUR 1.162 billion, RadiciGroup is one of Italy's leading chemicals multinationals, a diversified group specializing in chemicals, plastics and synthetic fibres. Among the Group's key strengths is the synergistic vertical integration of its polyamide production chain. RadiciGroup products are exported all over the world and are widely used in applications such as apparel, sports, furnishings, automotive, electrical/electronics, household 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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