

TRADRY

NUREL
SYNTHETIC FIBERS

XTRA-THERMIC

minerals
SPORT

xtracool

XTRA-FRESH

Comfort technologies

New fibers for new challenges

www.nurelfibers.com



NUREL Company

Extensive knowledge and experience in nylon polyamide production

Since 1967, NUREL has accumulated profound experience in the production of **polyamide 6 and 6.6 yarn** and is nowadays considered one of Europe's leading companies, in terms of capacity, quality, service and product innovation.

Our two cutting-edge spinning plants and outstanding draw-warping facilities that allow us to offer a range of products for lingerie, swimwear, sports and various technical applications which are unique in the market and able to meet most demanding customer's expectations.

We work for the fibers of the future by incorporating new technologies such as nanotechnology, smart textiles and other different programs of functional textiles

Among the most demanded attributes of Athletic clothing are comfort, moisture wicking and breathability.

NUREL Synthetic Fibers offers a range of products not only oriented to fulfill sport users' classic demands but also to anticipate future consumer insights

We offer two different proposals for Athletic clothing:

- A complete range of **special sections**, designed to encourage moisture management, thermal isolation and comfort.
- A **functional fibers** product range to enhance freshness and hydration.





Dry and comfort sensation

Moisture management properties

Helps to reduce wet feeling during sport activity maintaining the highest standards of comfort.

How does XTRA-DRY work?

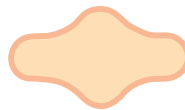
- Thanks to its special propeller cross-section, XTRA-DRY provides a quicker evaporation of moisture and sweat.
- Its four channels encourage the fiber to absorb moisture and "pull" it away from the skin to the outer side of the fabric where it can easily evaporate.

Properties

- Moisture absorption is increased 62%.*
- Increase air circulation.
- Permanent superior properties of moisture management, wicking and drying speed.*
- Excellent colour fastness and fabric hand touch.

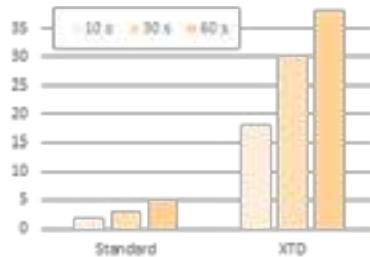
Product Range

- Available in PA 6 & 6.6.
- Flat and textured yarns.
- Available counts: 22/14, 44/14, 44/28, 44/34, 56/34, 78/28, 78/68.



XTRA-DRY

Longitudinal propagation velocity



Test undertaken by independent lab comparing similar fabrics, one made of standard nylon and another of XTRA-DRY.

Isolation & performance

Its exclusive geometry has been design to increase thermal isolation and to improve comfort levels thus optimize performance.

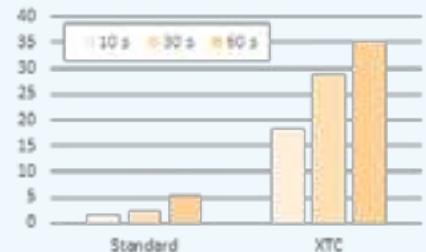
How does XTRA-COOL work?

This propeller shape hollow cross section improves thermal isolation and water abortion during sport training, helping to reduce body temperature.

Properties

- It contributes to regulate body temperature during workout enhancing performance.
- Thermal isolation advantages.
- Superior properties of moisture management, wicking and drying speed.*
- Thanks to its hollow core fabrics are lighter.

Longitudinal propagation velocity



Technical Report carried out by Leitac, Terrasa (Spain)

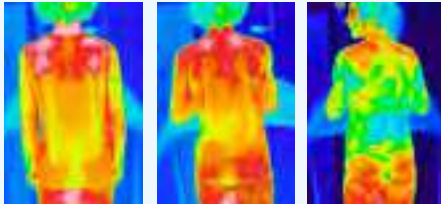
* Properties of moisture transport and comfort are permanent and inherent to the fiber.

 xtra-cool®

 XTRA-THERMIC®

Thermal Analysis (Temp. of the shirt)

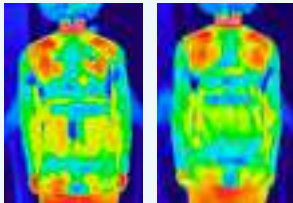
T_1 : Acclimatization. T_4 : 1/2 Recovery.
 T_2 : 1st Running. T_5 : End of Recovery.
 T_3 : 2nd Running.



$T_1=28.9^{\circ}\text{C}$

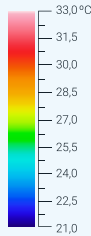
$T_2=29.3^{\circ}\text{C}$

$T_3=26.8^{\circ}\text{C}$



$T_4=26.3^{\circ}\text{C}$

$T_5=26.1^{\circ}\text{C}$



Test undertaken at Associazione Tessile e Salute, Biella (Italy).

Product Range

- Available in PA 6 & 6.6.
- Available counts: 22/12, 44/24, 56/48, 78/48.



XTRA-COOL

Thermal isolation

XTRA-THERMIC hollow fiber is the material of choice for extra comfort, thermal isolation and lightness

How does XTRA-THERMIC work?

Our circular hollow cross-section confers isolation performance to the nylon fibers.*

Properties

- This nylon fiber has been specially design for thermal protective garments.
- It is approximately 20% lighter than round fibers with similar decitex.
- Excellent colour fastness and homogeneity.
- It is specially recommended for first layer clothing in contact with the skin on high temperature conditions.

Product Range

- Available in PA 6 & 6.6.
- Available counts: 44/28; 44/14; 56/25; 56/14 60/30 44/30 78/60, 44/15.



XTRA-THERMIC

Energy & comfort: the perfect combination

Specially designed to energize and provide comfort. It contains water extract minerals that help to moisturize and to provide an energetic sensation

How does MINERALS work?

Thanks to our Novarel technology, deep concentrated water from a salty natural spring, can be encapsulated and incorporated into the polymer matrix.

During work-out, or any time the garment is worn, active principles (minerals) are released from the capsules to provide energizing sensation and hydration.

Properties

- Scientifically proven efficiency: After 14 days of use 12% skin hydration increase.
- It is recommended for first layer clothing in contact with the skin.
- It can be combined with any of our comfort cross-sections: XTRA-DRY, XTRA-COOL and XTRA-THERMIC.

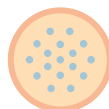
Technical information

- High resistance to washing. Maintains the quality aspect of garments.
- Novarel technology allows the knitter to follow the standard textile routes.
- This product contains a cosmetic that is registered following European Regulation (EC) No 1223/2009.

Product Range

- Available in PA 6 and PA 6.6.
- **Cross sections:** Special sections available to promote isolation and comfort.
- From 22 up to 156 decitex.

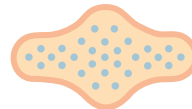
For any specific count, please contact your NUREL representative.



Standard



XTRA-THERMIC



XTRA-DRY



XTRA-COOL



Freshness benefits. Odor control*

Fiber with antimicrobials and anti odor functions

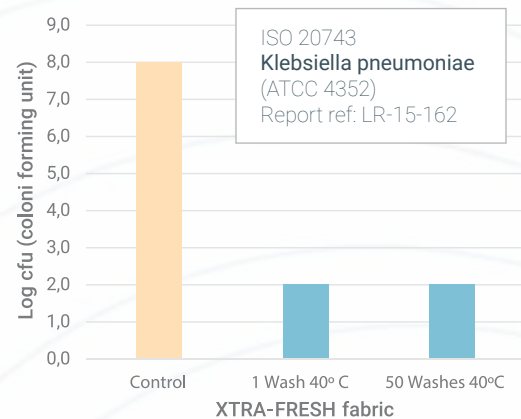
How does XTRA-FRESH work?

- It prevents bacterial growth, a major cause of body odor by using an Antimicrobial Masterbatch based on **silver ions**.
- XTRA-FRESH is designed to provide permanent freshness and it is safe for humans and for the environment.
- Its activity is limited to the surface of the textile, keeping it free from bacteria and thus free from odors.
- The additives are introduced during melt spinning process, providing a strong resistance during all processes.

Technical information

- It does not contain nanomaterials (2011/696/EU).
- It provides fabrics with durable protection against microbes. However it does not protect the user of the textile against microbes.
- Industry standard protocol: ISO 20743:2007 - Determination of finished products. Equivalent to JIS L 1902:2008.
- Complies with **REACH, Oekotex and European Biocide** legislation (European Regulation 528/2012).
- Knitters should follow the specific recommendations for scouring, bleaching, heat setting and finishing.

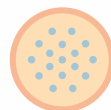
Properties



Product Range

- Available in PA 6 and PA 6.6.
- **Cross sections:** Special sections available to promote isolation and comfort.
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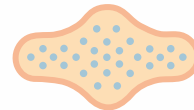
For any specific count, please contact your NUREL representative.



Standard



XTRA-THERMIC



XTRA-DRY



XTRA-COOL

* It contains a biocide product to preserve freshness. Active ingredient: silver ions.

Revolution in comfort



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