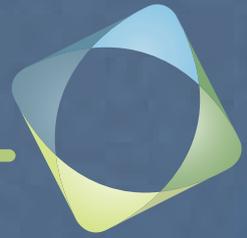


NEWLIFE



a premium yarn with a sustainable identity

www.newlifeyarns.com



Life Cycle Assessment (LCA)
by ICEA

Made in Italy



WHAT IS NEWLIFE™

Newlife™ is the product of an ambitious project developed by Sinterama. This technologically innovative platform is certified through a comprehensive production approach and offers a wide range of excellent quality, high performance recycled polyester yarn, made from post-consumption plastic bottles collected in northern Italy.

The unique nature of the Newlife™ production approach is defined by three fundamental elements:



The Environmental Business Award is sponsored by the Ministry of Environment and Protection of Territory and Sea and by the Chamber of Commerce of Rome - Asset room, with the support of UNIDO (United Nations Industrial Development Organization)



“Best Recycled Plastic Product”
Winner B to B - 2012

- The supply chain is not vertical, it has been developed horizontally in a system of certified Italian supply partnerships, to make it fully traceable, also thanks to the presence of a marker always detectable by laboratory analysis.
- The end product - the yarn - is completely derived from recycled post-consumption plastic bottles using a mechanical, not chemical process, certified as 100% Made in Italy along the whole supply chain.
- The Newlife™ range is composed of many sophisticated yarns in terms of innovation and enable a wide number of textile applications. Fabrics made with Newlife™ are beautiful and performing, not just sustainable.

NEWLIFE™ SUPPLY CHAIN

The process, including the sourcing of the raw material right through to its transformation into yarn, occurs thanks to the following processing stages:

1 • Sourcing

An Italian company recovers plastic bottles from waste recycling bins in northern Italy only and divides them according to type.

2 • Flakes production

An Italian company collects the selected material, cleans it, cuts it and uses a mechanical process to convert it into a polymer made of 100% recycled PET bottles that is suitable for spinning. This process is carried out exclusively for Sinterama.

3 • Sinterama

Using the technological know-how it has developed through years of experience and research to convert the polymer into a range of excellent quality and high performance recycled polyester yarns, suitable for a wide variety of applications. The Newlife™ yarns guarantee the same level of performance and quality as polyester yarns made from virgin polymer normally used in the market.



Newlife™ comes in a wide range of counts that reflect technical and environmental performances and adds functionalities that always meet the expectations.

THE END PRODUCT - NEWLIFE™

Technical performances - added functionalities:

- 1• Versions available: POy, drawn, texturized, microfibre, hollow filament.
- 2• Counts: from 40 d.tex to 2,000 d.tex.
- 3• Production capacity: 3,000 tons a year.
- 4• Skin Sun Protection.
- 5• UV Resistant.
- 6• Cotton Touch.
- 7• Thermal Management.
- 8• Odor control.
- 9• Moisture management.
- 10• Dyeing: the Newlife™ dyeing cycle and output is exactly the same as standard polyester yarn thanks to Sinterama's research into and development of the dyeing process.

The Newlife™ applications:

Lingerie, Fashion, Casual wear, Luggage, Career wear, Workwear, Sportswear, Labels and Ribbons, Automotive, Home Textile, Furnishing and Outdoor Furnishing.



SUN PROTECTION



U.V. RESISTANT



MOISTURE MANAGEMENT



COTTON TOUCH



ANTI BACTERIAL

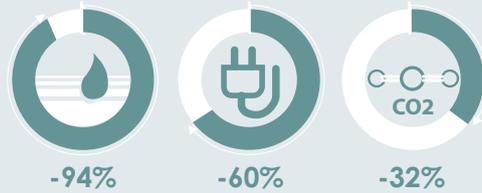


THERMAL MANAGEMENT



ENVIRONMENTAL PERFORMANCES

- Newlife™ uses a mechanical process, not a chemical one, to transform bottles into a polymer.
- The use of recycled polyester, which requires fewer processing stages, means less energy is utilized during the production process, resulting in a considerable reduction in carbon emissions.
- Dyeing the polymer already in the spinning stage avoids wasting water, with 10 litres of water per 1 kg of yarn used in the traditional yarn or fabric dyeing process.
- The production process is 100% Made in Italy and 100% traceable.
- Newlife™ got the following certifications:
 - 1 **Oekotex** Cert. n° 005339.0 - Centrocot
 - 2 **Global Recycle Standard** - Textile Exchange
 - 3 Newlife™ just got the LCA (Life Cycle Assessment) study by ICEA – Istituto per la Certificazione Etica e Ambientale (Institute for Ethic and Environmental Certification) which inspects and certifies firms respectful for the environment, workers' dignity and collective rights. ICEA provides organic producers with certification that is valid for the world market, recognised by foreign certification bodies and accredited by national and international institutions such as GOTS and Textile Exchange.



NEWLIFE™ LIFE CYCLE ASSESSMENT (LCA)

Recycled polyester, which requires fewer processing stages, consumes less energy during the production process, resulting in a considerable reduction in carbon emissions compared with virgin polyester.

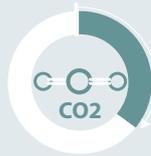
Newlife™ uses a mechanical process to transform bottles into a polymer, without the use of chemicals which could be harmful for the environment.

According to a study carried out by the ICEA (Institute for Ethic and Environmental Certification) using the methodology of Life Cycle Assessment (LCA), in compliance with ISO 14040, ISO 14044, producing 1 Kg of Newlife™ allows a saving in terms of consumption of energy resources and CO2 emissions which, compared to virgin polyester fibers production, results in:

Consumption of energy resources



Global Warming Potential



Water consumption (*)



Newlife™	50,6 MJ	3,88 kg CO ² eq	3,26 lt
Virgin PET Fibre	127,2 MJ	5,7 kg CO ² eq	60 lt
Saving	- 60 %	- 32 %	- 94 %

* Water consumption is referred to the production of 1 kg of recycled polymer, and is compared with the data of 1 kg of virgin PET taken from "Eco-profiles and EPD of the European Plastics Manufacturers - Polyethylene Terephthalate (PET) Bottlegrade, Plastics Europe 2011"

BRAND POLICY

Any fabric or any garment which must be accredited as per the product accreditation policy below, marketed or manufactured by or sold as a Newlife™ product shall:

- 1• Meet the industry standards for product quality and performance.
- 2• Contain 100% Newlife™ or the following approved blends:
 - Newlife™ blended with up to 50% (in weight) of “natural” or organic fibres;
 - Newlife™ blended with up to 50% (in weight) of regenerated fibres (Lyocell, Ingeo™, Soya, Milkofil®, etc..);
 - Recycled materials other than polyesters, with possible exceptions that Sinterama will approve according to the product performance required;
 - Newlife™ blended with up to 10% (in weight) of spandex/elastomeric polyurethane, when specifically used to achieve elasticity of the fabric;
 - Newlife™ blended with up to 15% (in weight) of synthetic fibres (not polyurethane), when specifically used to achieve elasticity of the fabric;
 - Other blends expressly approved by Sinterama in writing.

In any case, as owner of the Newlife™ trademark, Sinterama reserves the right to evaluate any possible exceptions in relation to the use of the trademark.

NEWLIFE™ MICRO

Newlife™ - Micro product line includes microfilament yarns composed of very thin filaments such as 0.7 dpf; flat, textured and twisted until 3000 tpm. Counts from dtex 33/50 to 156/400, 304/512 and 608/1024.

Newlife™ - micro is ideal for:

- high quality women's wear (soft touch and high comfort)
- underwear (it gives lightness with a velvety touch and excellent transpiration)
- furnishing (it meets with the most critical aestheticism and handling requirements)
- sportswear such as anoraks or raincoats (it matches the softness to the lightness, together with a perfect transpiration and waterproofness, properties which can be obtained without any resin treatment).

NEWLIFE™ FANCY EFFECT

Newlife™ - Fancy Effect, yarns with controlled sections of different dye up-take and/or different bulkiness, especially indicated to obtain colour and transparency effects.

Newlife™ - fancy effect line is continuously developing. Today it includes different types of products, such as:

T&T: yarns which alternate their lines with bulk and twist section, give a natural linen effect which are ideal for upholstery and furnishing.

SHANTOUNG: yarns which reproduce the silk tussah irregular flare appearance.

BOURETTE: this difference in bulk of the lines gives the yarn a special button effect.



NEWLIFE™ SKIN SUN PROTECTION

The sunlight hits the Earth with a wavelength from 290 to 3000 nm. The radiation between 280 and 400 nm is known as the ultraviolet radiation (UV) and the exposure to this radiation is dangerous since it can cause the ageing of the skin, sun rashes and malignant neoplasias.

The population with type 1 skin must be absolutely protected from the sunlight rays, but also the other types of skin need protection after short period of exposure.

Particularly, children are very sensitive and must be properly protected because the skin “remembers” every lesion caused by the UV rays.

An effective skin protection means keep in under control and minimizing the direct exposure to the ultraviolet rays by the use of protective clothing able to filter certain radiations by absorbing other ones.

The Newlife™ - Skin Sun Protection yarns offers a total UV protection thanks to their specific properties of high reflection and high absorption of UV radiation.

Degree of skin protection

The UPF protection factor (Ultraviolet Protection Factor) indicates how much more time you can be exposed to the sun, with this protection, before the first reddening sign of the skin becomes visible.

The fabrics produced with Newlife™ - Skin Sun protection yarns have a high UPF value (>50).

High performance:

- Ultraviolet (UV) and sunlight
- Solidity of colours
- Abrasion
- Resistance
- Durable



NEWLIFE™ UV RESISTANT

The ultraviolet (UV) rays are the electromagnetic radiation with a shorter wavelength than visible light (from 400 to 700 nm). The UVA and UVB (between 280 and 400nm) radiation emitted by the sun and not filtered by the atmosphere ozone layer, is considered one of the main causes of the ageing and degradation processes. They are phenomena that are observed after a prolonged exposure to light (yellowing, mechanical property deterioration) of any manufactured item, including textile products in general.

The strong energy of the UV rays can break the chemical bonds in the polyester molecules that make the fabric. This phenomenon originates free radicals that react with other molecules (for instance oxygen in the air), generating photo-degradation and photo oxidization.

This causes colour changes (dye chromophore deterioration) and tenacity decay.

Newlife™ - UV Resistant yarns have an excellent rate between cost and dyeing efficiency on all the colour shades, with permanent UV resistance-performances. Such properties make them ideal to produce fabrics for curtains and outdoor coverings.



NEWLIFE™ COTTON TOUCH

This is a significant new entry in the wide range of post consumer recycled polyester yarns.

This Add-on for Newlife™ combine a reduced carbon footprint with a soft touch and a “naturally synthetic” appearance.

This makes **Newlife™ - Cotton Touch** yarns particularly suitable for a wide range of products, from sportswear to workwear.

The special composition of the yarn, due to the modified filament section, allows the moisture to pass from the inside to the outside of the fabric, keeping the body dry. Therefore, during tough physical activities, garments made with Cotton Touch yarns guarantee high levels of comfort.



NEWLIFE™ THERMAL MANAGEMENT

Newlife™ yarns, due to the hollow core section ensure thermal insulation, comfort and lightness to the fabric, up to 25% less weight than the standard product.

Newlife™ yarns entrap air in its hollow core thus improving the thermal characteristics of the fabric.

Newlife™, with its specific characteristics, is suitable for the medical field, sportswear, leisure wear and sport underwear.



NEWLIFE™ POLYGIENE® ODOR CONTROL RECYCLED POLYESTER

Newlife™ Polygiene® was born through the collaboration between Polygiene®, the world leader in odor control and freshness technology, and SINTERAMA Group.

Polygiene® Permanent Odor Control - a silver chloride derived from recycled silver from electronic waste - inhibits the growth of microbes, such as bacteria and fungus, that cause odor. Bad smells develop when odor-causing bacteria settle into the fabric, mix with sweat and multiply. The treatment is permanent, and products treated with Polygiene® stay fresh and remain hygienic between washes, earning Polygiene's remark: **Wear More. Wash Less®**.

Newlife™ Polygiene® is a continuous filament yarn with considerable benefits to the customer in terms of odor control, easy care and longer-lasting garments. The performance is polymer-intrinsic, therefore permanent. Performance will not decrease after repeated washings and dry cleaning, and is not altered by exposure to light, heat and humidity.

Newlife™ Polygiene® yarns are made from 100% post-consumer PET bottles that are processed into a polymer through a mechanical process and spun exclusively and entirely in Italy into yarn and is Oekotex standard 100 certified.

The effective action of Newlife™ Polygiene® stops the proliferation of a wide range of bacteria and gets rid of unpleasant smells.

Biocide based on reaction mass of titanium dioxide and silver chloride.



NEWLIFE™ MOISTURE MANAGEMENT

During sporting activity, our body uses sweat to control the rise in body temperature. If the clothes you wear are not transpirable, the fabric becomes damp with perspiration causing discomfort and hindering the natural thermoregulation: under this condition our body reacts by increasing the perspiration to cool down body. The result is an unnecessary waste of energy and a feeling of discomfort during sport activities.

The **Newlife™ - Moisture Management** yarns line makes the moisture transport easy, due to the modified section, allowing the garment to dry more quickly.

The modified section collects the drops of perspiration which is transported to the outer part of the fabric.

Eliminating the excessive perspiration facilitates the natural body thermoregulation. The inner part of the fabric close to the skin dries very rapidly therefore avoiding the unpleasant sticky feeling.

In the sportswear and workwear sector, the fabric capacity to absorb humidity and give a comfortable dry feeling to the skin allows the continuation of different activities in complete comfort.

Fabrics made with Newlife™ - moisture management yarns transport moisture more rapidly than natural fabrics, therefore allowing a faster evaporation and quick dryness.

APPLICATIONS

NEWLIFE 



Lingerie



Fashion



Casual wear



Luggage



Career wear



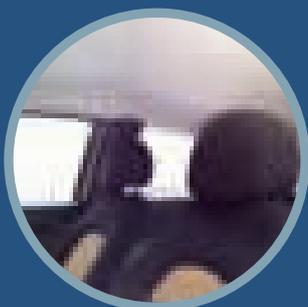
Workwear



Sportswear



Labels
Ribbons



Automotive



Home Textile



Furnishing
Outdoor Furnishing