New nylon stories
An inexhaustible source of stories

This is a story you have never heard.
A story that begins anew again and again, but each time with a different ending.
It is a story of how production scrap is converted into secondary raw material until it becomes Renycle®, a sustainable nylon featuring optimal performance for a variety of applications.
Renycle® is ideal for expressing your identity in innovative ways.
Are you ready to write your own story with Renycle®?

Nylon after nylon

*Renycle® is the latest RadiciGroup product*

obtained from recycled nylon 6, a highly valued material because of its excellent resistance, dyeability, softness and versatility. Through recycling and recovery, production scrap is converted into polymers and then into yarn endowed with technical performance characteristics perfect for textile flooring, apparel and automotive applications.

From scrap to new nylon

Nylon Production Cycle

Renycle® Production Cycle

CPL → Polymerization → PA6 → Spinning → YARN

R-PA6 → Spinning → RENYCLE®
Why choose Renycle®

Renycle® gives you the opportunity to be greener in several ways:

- **A global leader:** Renycle® is a product from RadiciGroup, one of the world’s leading manufacturers of polyamides, synthetic fibres and engineering polymers.
- **Performance:** Renycle®’s technological value and performance are retained unchanged over time and there is no loss into the environment.
- **No waste:** Conversion of scrap eliminates the need for new raw material.
- **Green energy:** The energy consumed in Renycle® polymer production is entirely green, as it comes from renewable sources.

Our Renycle® results have a lot to say

Resource saving compared to standard PA6 polymer production.
(Data obtained from internal evaluations, under EPD certification process.
(What is energy mix).

**Energy**
Energy saving of 87.4% compared to energy used for standard PA6 polymer production.
(Global Energy Requirement MJ/kg)

**Emissions**
89.3% lower CO₂ emissions compared to standard PA6 polymer production.
(Global Warming Potential GWP100 kg CO₂ eq)

**Water**
Water saving of 90.4% compared to consumption for standard PA6 polymer production.
(Potential Water Deprivation m³)

The Renycle® story does not end here.
Its applications go on and on.

Renycle® is the ideal solution for all those sectors where creativity and high performance are required.
It has countless applications in:

- Activewear
- Underwear
- Hosiery
- Technical apparel
- Outerwear
- Beachwear

Certified by ICEA [GRS 2019-141]
RadiciGroup.
Inside your world.

RadiciGroup is one of the most active Italian chemicals manufacturers at an international level. RadiciGroup’s diversified businesses operate worldwide and are focused on Specialty Chemicals, High Performance Polymers, Synthetic Fibres and Nonwovens. Synergistic vertical integration, of polyamide production in particular, is one of RadiciGroup’s strengths. Indeed, the Group has total control over its production chain, from chemical intermediates, such as adipic acid, to polyamide polymers, engineering polymers and synthetic fibres. RadiciGroup products are exported all over the world for use in the following sectors: apparel, sports, furnishings, automotive, electrical/electronics and household appliances.

Sustainability

Every day at RadiciGroup we work to make circularity our business model. We optimize the use of materials while fine-tuning our processes, eliminating waste, promoting recyclability from the earliest product design phases. We are always looking for low-impact solutions in terms of natural resources and energy. We rely on certified management systems for Safety, Environment and Energy to keep our companies in line with the highest sustainability standards.

Last 10 years’ milestones:

- **17.5%** Energy use per ton processed
- **61.5%** CO₂ emissions per ton processed
- **8.6%** Water use per ton processed

Data Source: RadiciGroup Sustainability Reports