

Nouryon's Revolutionary Polymer Recycling Technology



Polymer Recycling: We Make It Possible

In a world increasingly focused on circular solutions to reduce waste and environmental impact, innovative recycling methods are more crucial than ever. Nouryon is at the forefront of this innovation, with a groundbreaking technology that redefines the possibilities for the reuse of polymers.

How Our Technology Works

Our technology is designed to overcome a key challenge of plastic recycling: the diverse melt properties of plastic waste. By precisely tuning the melt properties of recycled plastics, we can match the requirements of various end uses and enable the use of higher recycled content in the production of new products. Our technology delivers greater flexibility and control over the material properties because it can not only increase the Melt Flow Index (MFI) of recycled Polypropylene (rPP), but also decrease it!

Integration into Recycling Processes

Our technology is seamlessly integrated at the extrusion step, in a recycling or compounding factory. Our products only leave trace amounts of their presence in the final recycled material enabling manufacturers to claim 100% recycled content.

Product Quality and Sustainability

The transformative power of this technology allows the integration of high-quality recycled plastic in packaging,

consumer goods, building materials and many more products, supporting a more circular economy and reducing waste.

Benefits for Manufacturers

One significant benefit is the ability to bring the MFI of recycled Polypropylene (rPP) down by rebuilding the polymer chains with the generation of long chain branching. By using Perkadox® PM, we can bring the MFI of rPP to levels suitable for thermoforming applications; we can even reduce the MFI to below 1, making it suitable for extrusion processes. Alternatively, adding a smaller amount of Perkadox® PM can still significantly improve the mechanical properties without reducing the MFI as much, offering flexibility depending on the desired end-use. By rebuilding the mechanical properties of rPP, we make it suitable for more demanding applications. In addition, higher recycled content can be achieved without compromising on performance.

Learn More

We encourage anyone interested in our technology to watch our video, which demonstrates how we convert plastic waste into high-quality materials, enabling endless product cycles and supporting a sustainable future.

For more information please visit nouryon.com/recycling or contact our expert.



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