



Essential Ingredients for Upcycling of Polypropylene

To go **UP** or **DOWN** with the Melt Flow Index of recycled plastic

Nouryon

Our unique portfolio for plastic recyclers

We are the global leader in the production of organic peroxides for the polymer, rubber and resin industry. Markets worldwide rely on our essential chemistry, our global production footprint and safety expertise to enable the Polymer life cycle.

We are unique at being the only producer of a full product portfolio for recyclers that allows tuning of the MFI of polypropylene in both directions: UP and DOWN.

With our technology recyclers have the opportunity of producing a large range of recycled polypropylene products for the most diverse applications, expanding their market reach to high-end applications for which virgin PP was usually preferred.

We continuously develop new products and innovate to meet the needs of the recycling market.

Our product offering for the MFI modification of polypropylene

MFI UP

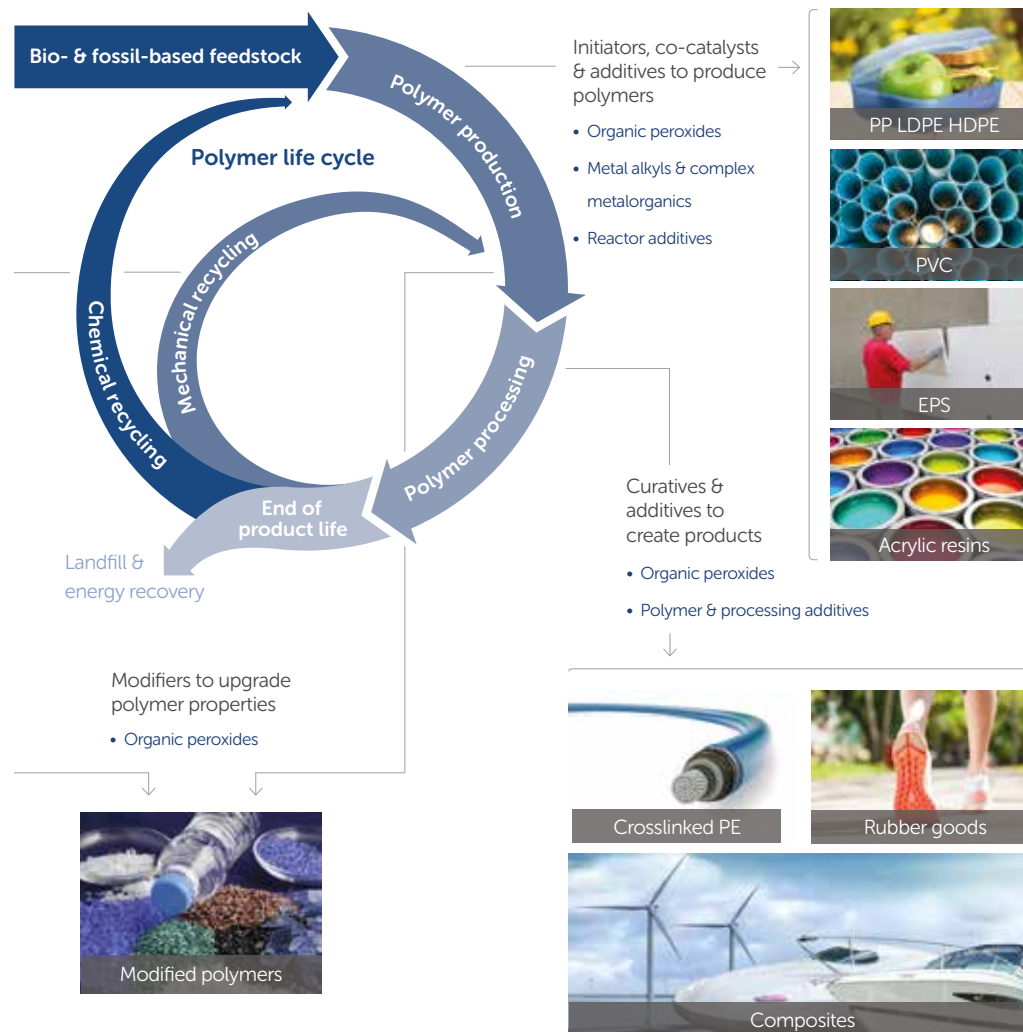
Trigonox® 501-CS40	1,2,4,5,7,8-Hexoxonane, 3,6,9-trimethyl-3,6,9-tris (Et and Pr)
Trigonox® 301.	3,6,9-Triethyl-3,6,9-trimethyl-1,4,7-triperoxonane
Trigonox® 101	2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane
Perkadox® 14	Di(tert-butylperoxyisopropyl)benzene(s) .

MFI DOWN

Perkadox® PM-W75	Di(4-methylbenzoyl) peroxide
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Contact our sales team to know more about availability in a free-flowing masterbatch form.

Building on a sustainability driven strategy. We provide essential ingredients to enable the polymer cycle.



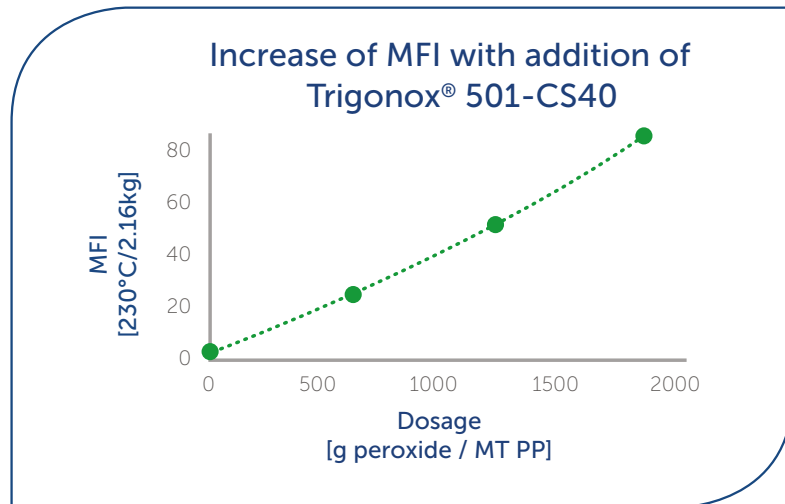
Our latest innovations for upcycling of polypropylene



Go UP with the MFI of polypropylene
Trigonox® 501-CS40 for consistent quality

Recycled Polypropylene (PP) is produced from raw materials with different Melt Flow Indexes resulting in fluctuating quality of recycled PP, causing instability during processing at converters.

Our last generation vis-breaking peroxide Trigonox® 501-CS40 is used in the reactive extrusion of recycled PP to achieve a higher MFI and a narrower Molecular Weight Distribution. This results in constant and reproducible recycled PP quality.



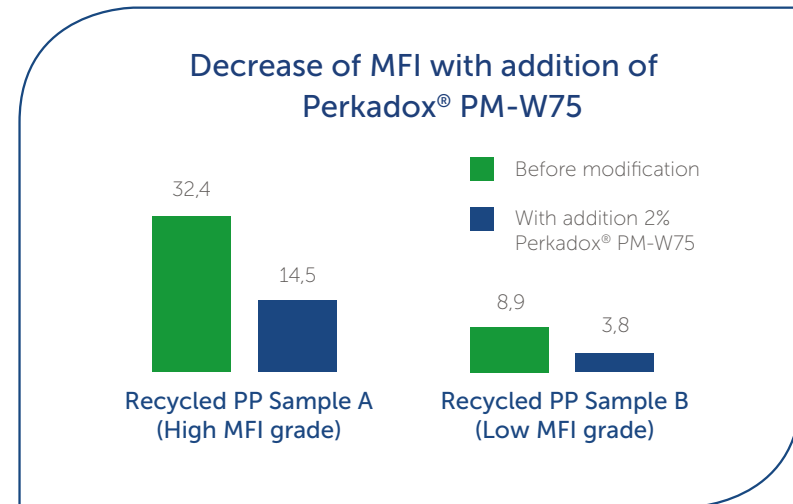
Trigonox® 501-CS40 is superior to traditional vis-breaking peroxides; in fact, it shows a 60% reduction in the Volatiles Organic Compounds produced during extrusion and can be stored at room temperature.



Go DOWN with the MFI of polypropylene
Perkadox® PM-W75 for high melt strength

Most of the properties of recycled plastics are inferior to virgin plastics due to exposure to UV and sunlight during the article's use and lifetime.

Nouryon has patented a new technology in which Perkadox® PM-W75 is used in the reactive extrusion of recycled PP to decrease the MFI to levels similar to virgin polymer. This is known as upcycling of plastics.



With the use of Perkadox® PM-W75 the melt strength and melt elasticity of the modified recycled PP increases strongly, enabling new processing opportunities and applications like foaming, blow molding and even thermoforming.

Nouryon is a global, specialty chemicals leader. Markets and consumers worldwide rely on our essential solutions to manufacture everyday products, such as personal care, cleaning goods, paints and coatings, agriculture and food, pharmaceuticals, and building products. Furthermore, the dedication of approximately 7,650 employees with a shared commitment to our customers, business growth, safety, sustainability and innovation has resulted in a consistently strong financial performance. We operate in over 80 countries around the world with a portfolio of industry-leading brands. Visit our website and follow us @Nouryon and on LinkedIn.

Contact us

Elisa Conte

Marketing and Business Development Manager
E elisa.conte@nouryon.com

Additional information

Product Data Sheets (PDS) and Safety Data Sheets (SDS) for our plastic recyclers are available at [nouryon.com](https://www.nouryon.com)

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September 2022



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