



» PRODUCT BULLETIN

Cesa™ Nox A4R Additives for Recycling Polyolefin Antioxidant for Enhanced Recycling

RECYCLED MATERIAL IN A CHANGING MARKET

Legislation globally is driving change towards increased quantities of post-consumer recycled materials (PCR), further encouraged by the implementation of usage targets and new tariffs.

Many brand owners are also setting their own sustainability targets by pledging to increase PCR content by a significant percentage within relatively short time scales.

Both legislation and industry goals have created an increased demand for recycled material across the plastics industry, but especially within the packaging market.

RECYCLING CHALLENGES

As more and more PCR enters the value chain, brand owners, recyclers, and converters are faced with new and increasing challenges related to recycling.

During processing, polymers often degrade due to oxygen and heat exposure which causes such things as discoloration, gels, and black spots. These defects can create further processing issues later on which can slow down production, interfere with end-product quality, or cause issues with consumers and brand image.

Brand owners, recyclers, and converters require high-performance and cost-effective solutions that can make recycling easier, allowing them to continue using greater quantities of PCR.

DESIGN FOR RECYCLING

Cesa™ Nox A4R is designed for recycling. It is a specialized antioxidant additive that stabilizes polyolefins during processing—preventing the typical defects like discoloration, gels, and black spots—during initial, and future conversion steps and recycling loops.

Protecting PCR from degradation in this way can help achieve higher quality levels of recycle and better end-use products and improve the quality of the overall recycling stream due to its long term stabilizing effect.

Cesa Nox A4R is formulated to help:

- Brand owners who need to maximize their PCR usage up to 100% to achieve sustainability and recyclability targets
- Recyclers involved with flake or pellets dealing with multiple processing defects
- Convertors of bottles, film, and sheet who need to maintain high-quality levels of PCR

Performance enhancement antioxidants such as Cesa Nox A4R are valuable for many stakeholders within the circular economy, and indeed anyone seeking to achieve high-quality levels in their recycle while operating with ever-increasing quantities of PCR.

Sustainability Spotlight



Recycle
Solutions





KEY CHARACTERISTICS

- Designed for polyolefin recycling and to enhance circularity
- Protects polyolefins against degradation caused by oxygen and heat during processing
- Provides improved stability against oxygen degradation and discoloration
- Stabilizes the polymer to reduce creation of new gels and black spots
- Excellent performance at low dosage levels

MARKETS & APPLICATIONS

- Recycled polyolefins
- Packaging, consumer & others
- High-value polyolefin applications with recycled material content
- Virgin polymers which will be recycled after the use phase

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