



Product News

Bridging the performance gap together

Queo™ 6201LA-P

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Background

Polypropylenes (PP) require impact modification to lift low temperature impact performance of the PP to a usable level for the automotive industry, among others. These compounds are referred to as TPOs. TPOs are physical mixtures, or blends, of a semi-crystalline polyolefin (mostly PP) with amorphous elastomeric polymers (such as polyolefin elastomers: POE) to improve low temperature impact performance of the PP. TPOs are produced by melt-blending the PP and elastomer components, most often by using the twin screw mixer. The automotive industry is the largest end user of TPO – mainly in exterior components.

Challenge

Until now, customers in the automotive industry have experienced limited choice due to the few suppliers of the lowest density elastomer ideal for this type of modification, and even fewer with local European production. This sort of temperature sensitive material is best produced and supplied locally to prevent the material arriving at the converter's premises fused together, no longer as free flowing granules. Converters without access to the best-in-class impact block-PP's need this type of elastomer to produce TPOs with benchmark performance.

Solution

Queo 6201LA-P, the new polyolefin elastomer (POE) from Borealis, solves these issues. With a density of 862kg/m³, it has the softness and flexibility required for TPO production, producing amorphous structures able to withstand abuse at low temperatures. It is an excellent impact modifier with minimal antioxidants by design, enabling customers to conduct their own mixing and create their own recipes.

Queo™ 6201LA-P is protected with talcum powdering to ensure the free flowing of granules in transport and warehousing. This reduces the risk of fusing – a common issue that forces customers to take costly counter measures.

Benefits



- Allows benchmark TPO production in automotive and construction industries.
- Provides customers with an alternative option when sourcing POE.
- Highly amorphous structure with outstanding low temperature impact.
- Available as free flowing granules for continuous compounding and talcum powdered to protect against the fusing of granules.
- Melt Flow Rate of the Queo 6201LA-P is better adapted to the MFR of the used impact Block-PP's for easy dispersion, resulting in improved low temperature impact performance.
- Excellent polymer modifier.

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Density (kg/m³) ISO 1183	MFR (dg/min) 2.16kg/190°C ISO 1133	DSC peak melt point (°C) ISO 11357	Film applications	Extrusion coating	Sound deadening and other automotive	Flexible sheets	Wire and cables	PP impact modification	Injection moulded articles	Compounds and master-batches	Synthetic corks	Adhesives	Caps and closures	Foams	Extras
862	1.0	40			✓			✓		✓					• Low anti-oxidant package • Talcum dusted

About Borealis Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions. In Europe, Borealis is also an innovative leader in polyolefins recycling and a major producer of base chemicals. We leverage our polymer expertise and decades of experience to offer value-adding, innovative and circular material solutions for key industries such as consumer products, energy, healthcare, infrastructure and mobility.

With customers in over 120 countries and head office in Vienna, Austria, Borealis employs around 6,200 people. In 2024, we generated a net profit of EUR 566 million. OMV, the sustainable chemicals, fuels and energy company with a focus on circular economy solutions, headquartered in Vienna, Austria, owns 75% of our shares. The Abu Dhabi National Oil Company (ADNOC), based in the United Arab Emirates (UAE), owns the remaining 25%.

In re-inventing essentials for sustainable living, we build on our commitment to safety, our people, innovation and technology, and performance excellence. We are accelerating the transformation to a circular economy of polyolefins and expanding our geographical footprint to better serve our customers around the globe. Our operations are augmented by two important joint ventures: Borouge (with ADNOC, headquartered in the UAE); and Baystar™ (with TotalEnergies, based in the US).

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