polytives

*b*FI

Process Advantages for Common PMMA Grades: Higher Efficiency & Design Freedom

Clear as on the first day: innovative additives enable more efficient and energy-saving processing of PMMA, while maintaining a high level of safety and long-term stability.

Efficient processing thanks to polymeric additives

Polymeric additives influence common process variables such as injection pressures and cycle time in plastics processing. They enable converters to fine-tune their production parameters. The polymeric additive *b*FI A 3745 from Polytives significantly reduces melt viscosity and process pressures. One advantage of this special flow improver stands out: even at high dosages, there is no loss of mechanical properties (see Fig. 1). Lower processing temperatures enable cycle times to be reduced by up to 20%, leading to cost reduction and lower CO_2 emissions.

Performance even after decades

*b*FI A 3745 integrates seamlessly into the PMMA matrix, thereby maintaining transparency and resistance to aging. Compounds containing PLEXIGLAS® 8N were produced for xenon weathering studies. Even after 10,000 hours, there were no significant changes observed in the transmission curves in the visible range (see Fig. 2). Neither clouding nor yellowing occurred; color and transparency stability remained reliably preserved even at higher dosages (see Fig. 3).

Conclusion: a crystal-clear advantage

The additive *b*FI A 3745 from Polytives greatly increases the potential of common PMMA types. Shear rate stable, energy-efficient, and cost-effective, it excels with its usual high quality while offering new design possibilities without compromising on appearance or durability.

Contact us now and discover how to enhance your process.

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Fig. 1: Influence of the polymer additive *b*FI A 3745 on the thermal and mechanical properties of PMMA.

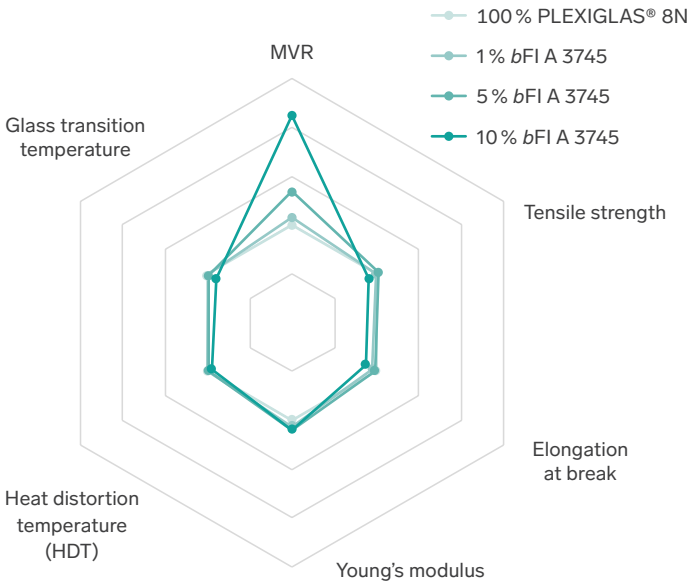

Fig. 2: Comparison of the transmission of a PLEXIGLAS® 8N PMMA type with and without the addition of *b*FI A 3745 after 10,000 hours of weathering.

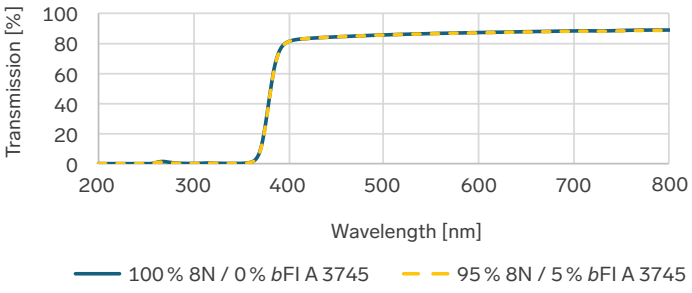

Fig. 3: Determination of the yellowness index of PMMA types, pure and blended with *b*FI A 3745.