



Polypropylene TPO Compound

Description

Daplen EF109AEB is a 20% mineral filled elastomer modified polypropylene compound intended for injection moulding.

Applications

Daplen EF109AEB has been developed especially for the car industry to be used in automotive exterior parts.

Bumpers Exterior trims

Special features

Low thermal expansion Suitable for applications, which require low expansion over a broad temperature scale Excellent stiffness and impact balance Optimised surface

Physical Properties

Values determined on standard injection moulded specimens conditioned at 23°C and 50% relative humidity after at least 96 hours storage time.

| Property | Typical Value Data should not be used for | Test Method specification work | |
|---|---|-----------------------------------|--|
| Density (23 °C) | 1030 kg/m³ | ISO 1183 | |
| Melt Flow Rate (230 °C/2,16 kg) | 20 g/10min | ISO 1133 | |
| Flexural Modulus (2 mm/min) | 1.700 MPa | ISO 178 | |
| Flexural Strength | 27 MPa | ISO 178 | |
| Tensile Stress at Yield (50 mm/min) (23 °C) | 19 MPa | ISO 527-2 | |
| Heat Deflection Temperature Edgewise (1,80 MPa) | 56 °C | ISO 75-2 | |
| Vicat softening temperature B50, | 56 °C | ISO 306 | |
| Izod Impact Strength, notched (23 °C) | 32 kJ/m² | ISO 180/1A | |
| Izod Impact Strength, notched (-30 °C) | 5 kJ/m² | ISO 180/1A | |

Combustion Properties

| Property | Typical Value Test Method Data should not be used for specification work |
|--------------------------------|--|
| Flammability at thickness 1 mm | Max100 mm/min ISO 3795 |

Processing Techniques

The actual conditions will depend on the type of equipment used.

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This product is easy to process with standard injection moulding machines. To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C. Following parameters should be used as guidelines:

Feeding temperature 40 - 80 °C

Mass temperature 220 - 260 °C

Back pressure Low to medium

Holding pressure 30 - 60 MPa

Mould temperature 30 - 50 °C

Screw speed Low to medium

Flow front speed 100 - 200 mm/s

Storage

Daplen EF109AEB should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

Safety

The product is not classified as dangerous. Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

Recycling

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

