

Polypropylene

Daplen™ ED113AE

Polypropylene TPO Compound

Description

Daplen™ ED113AE is a 15% mineral filled polypropylene compound intended for injection moulding. This material provides excellent paintability, very good impact/stiffness balance and it is easy to process.

Applications

Daplen ED113AE has been developed especially for the automotive industry and is suitable for applications like:

Bumpers
Automotive exterior applications

Rocker panels

Special Features

Very good processability
High level of surface aspects, meeting the more stringent paint adhesion requirements
Low density with good impact/stiffness balance enabling weight reduction

Primerless paintable allowing optimisation of painting cycle time and reduction of system costs
Low thermal expansion over a broad temperature scale for zero-gap applications

Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density	1000 kg/m ³	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	8,5 g/10min	ISO 1133
Tensile Modulus	1.700 MPa	ISO 527-2
Tensile Strength	17 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	102 °C	ISO 75-2
Coefficient of Thermal Expansion (-30 °C/80 °C)	66 µm/mK	Borealis Test Method
Charpy Impact Strength, notched (23 °C)	35 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	5 kJ/m ²	ISO 179/1eA

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

Processing Techniques

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

Injection Moulding

To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C. This product is easy to process with standard injection moulding machines. Following moulding 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 bar
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 mm/s

Storage

Daplen ED113AE 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.

Daplen is a trademark of the Borealis group.

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Safety

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety 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.

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of recovery and disposal of the product.

Regional Availability

Europe

North America: grade available under the name Daplen ED113AEU

For information on regional availability please contact Borealis Sales Representative.

Issuer:

Marketing Automotive / Daniel Bahls

Product Management / Michael Otte

Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

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