Polypropylene

Daplen™ EE158AI

Polypropylene TPO Compound

Description

Daplen EE158AI is a 13% mineral filled elastomer modified polypropylene compound intended for injection moulding.

This material has an excellent balance between impact strength and stiffness, gives a good surface quality and is easy to process.

Applications

Daplen EE158AI has been developed especially for the car industry to be used in automotive interior parts.

Dashboards
Pillar trims
Door panels and pockets
Trunk claddings
Other automotive interior parts

Special features

Excellent scratch resistance
No tendency to show stickiness after outdoor exposure
High dimensional stability

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	980 kg/m3	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	11 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	1.750 MPa	ISO 178
Flexural Strength	30 MPa	ISO 178
Tensile Modulus (1 mm/min)	1.700 MPa	ISO 527-2
Tensile Strain at Yield (50 mm/min)	6,0 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	23 MPa	ISO 527-2
Heat Deflection Temperature A (1,80 MPa)	54 °C	ISO 75-2
Heat Deflection Temperature B (0,45 MPa)	95 °C	ISO 75-2
Vicat softening temperature (10 N)	131 °C	ISO 306
Vicat softening temperature (50 N)	55 °C	ISO 306
Charpy Impact Strength, notched (23 °C)	25 kJ/m²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	5 kJ/m²	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	170 kJ/m²	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	60 kJ/m²	ISO 179/1eU

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

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Application Related and other Tests

Property	Typical Value Data should not be used for specification work	Test Method
Fogging (100 °C,16 h)	< 2 mg	DIN 75201
Emission	< 50 µgC/g	VDA 277
Isotropic Shrinkage (radial disk) [1]	0,90 %	Borealis Method
Anisotropic Shrinkage (radial disk) [1]	0,09 %	Borealis Method

[1] VALUES MAY ONLY BE USED AS INDICATION, AND SHOULD NOT BE USED DIRECTLY IN MOULD DESIGN WITHOUT PRIOR VALIDATION

Processing Techniques

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

Injection Moulding

Daplen EE158AI 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 EE158AI 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 of the product. For more information, contact your Borealis representative.

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