



PolypropyleneTM DaplenTM EH227AE

Polypropylene TPO Compound

Description

Daplen EH227AE is a 20% mineral filled elastomer modified polypropylene compound intended for injection moulding.

This material has an excellent balance between impact strength and stiffness, high melt flow rate and gives a good surface quality.

Applications

Automotive exterior applications
Exterior trims

Rocker panels

Special features

UV stabilised
Excellent surface appearance on unpainted and grained parts

High flowability allowing to mould complex-structured parts with very high "flow path / wall thickness ratios"

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	1050 kg/m ³	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	40 g/10min	ISO 1133
Flexural Modulus	1.550 MPa	ISO 178
Tensile Modulus (1 mm/min)	1.450 MPa	ISO 527-2
Tensile Strain at Yield	5 %	ISO 527-2
Tensile Stress at Yield	16 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	86 °C	ISO 75-2
Heat Deflection Temperature A (1,80 MPa)	47 °C	ISO 75-2
Vicat softening temperature A, (10 N)	102 °C	ISO 306
Vicat softening temperature B, (50 N)	32 °C	ISO 306
Coefficient of Thermal Expansion (23 °C/80 °C)	56 µm/mK	Borealis Method
Charpy Impact Strength, notched (23 °C)	42 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	6 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-30 °C)	4 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	No break	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	130 kJ/m ²	ISO 179/1eU
Izod Impact Strength, notched (23 °C)	41 kJ/m ²	ISO 180/1A
Izod Impact Strength, notched (-20 °C)	7 kJ/m ²	ISO 180/1A
Hardness, Ball Indentation	26 MPa	ISO 2039

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



Polypropylene

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Application Related and other Tests

Property	Typical Value	Test Method
Data should not be used for specification work		
Mould average Shrinkage ¹	0,55 %	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

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 m/min

Storage

Daplen EH227AE 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.

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.