



Polypropylene TPO Compound

Description

Daplen EF268AIU is a 20 % mineral filled polypropylene compound intended for injection moulding.

This material has an excellent balance between impact strength and stiffness and is easy to process.

Applications

Daplen EF268AIU has been developed especially for the car industry to be used in automotive interior parts.

Automotive interior applications Dashboards Door panels and pockets

Other automotive interior parts Center consoles

Special features

Good scratch resistance

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 s | Test Method |
|--|---|--|
| Density | 1040 kg/m3 | ISO 1183 |
| Melt Flow Rate (230 °C/2,16 kg) | 14 g/10min | ISO 1133 |
| Flexural Modulus (2 mm/min) | 1.800 MPa | ISO 178 |
| Flexural Strain | 4,9 % | ISO 178 |
| Flexural Strength | 24 MPa | ISO 178 |
| Flexural Stress at 3,5 % Strain | 23 MPa | ISO 178 |
| Tensile Modulus (1 mm/min) | 1.700 MPa | ISO 527-2 |
| Tensile Strain at Yield (50 mm/min) | 5 % | ISO 527-2 |
| Tensile Strain at Break | 110 % | ISO 527-2 |
| Tensile Stress at Yield (50 mm/min) | 18 MPa | ISO 527-2 |
| Tensile Stress at Break | 12 MPa | ISO 527-2 |
| Heat Deflection Temperature A (0,45 MPa) | 94 °C | ISO 75-2 |
| Heat Deflection Temperature B (1,80 MPa) | 52 °C | ISO 75-2 |
| Vicat softening temperature A50, (10 N) | 118 °C | ISO 306 |
| Vicat softening temperature B50, (50 N) | 42 °C | ISO 306 |
| Coefficient of Thermal Expansion (-30 °C/80 °C) Charpy Impact Strength, notched (23 °C) | 42 C 49 µm/mK 43 kJ/m² | Borealis Method ISO 179/1eA |
| Charpy Impact Strength, notched (-20 °C) | 4,6 kJ/m² | ISO 179/1eA |
| Charpy Impact Strength, unnotched (-20 °C) | 65 kJ/m² | ISO 179/1eU |
| Charpy Impact Strength, unnotched (23 °C) | No break | ISO 179/1eU |
| Izod Impact Strength, notched (23 °C) | 38 kJ/m² | ISO 180/1A |
| Izod Impact Strength, notched (-20 °C) Izod Impact Strength, unnotched (23 °C) | 4,5 kJ/m² No break | ISO 180/1A ISO 180/1A ISO 180/1U |
| Izod Impact Strength, unnotched (-20 °C) | 42 kJ/m ² 32 MPa | ISO 180/1U |
| Hardness, Ball Indentation H 358/30 | 32 IVIFA | ISO 2039 |







Application Related Tests

| Property | Typical Value Test Method Data should not be used for specification work | |
|---|--|-----------------|
| Fogging (100 °C,16 h) | < 2 mg | DIN 75201 |
| Emission | < 50 µgC/g | VDA 277 |
| Mould average Shrinkage (disk) ¹ | 0,6 % | 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: To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C.

Feeding temperature Mass temperature Holding pressure Back pressure Mould temperature Screw speed Flow front speed 40 - 80 °C 220 - 260 °C 30 - 60 bar Low to medium 30 - 50 °C Low to medium 100 - 200 m/min

Storage

Daplen EF261AI 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 a dangerous preparation.

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.

