

Polypropylene

Daplen™ EF120AE

Polypropylene Elastomer Modified Compound

Description

Daplen EF120AE is a 15% mineral filled elastomer modified polypropylene compound intended for injection moulding.

This material has excellent balanced mechanical properties, gives a good surface quality and is easy to process.

Typical characteristics

Daplen EF120AE can be described with following typical characteristics:

UV stabilised High scratch resistance
 Excellent surface appearance on unpainted and grained parts

Applications

Bumpers Exterior trims

Daplen EF120AE has been developed especially for the automotive industry.

Physical properties

Property	Typical value *	Unit	Test method
Density	990	kg/m ³	ISO 1183-1
Melt flow rate (230 °C/2.16 kg)	23	g/10min	ISO 1133-1
Flexural modulus (2 mm/min)	1750	MPa	ISO 178
Tensile strength (50 mm/min)	19	MPa	ISO 527-2
Charpy impact strength, notched (23 °C)	55	kJ/m ²	ISO 179-1/1eA
Charpy impact strength, notched (-20 °C)	7	kJ/m ²	ISO 179-1/1eA
Charpy impact strength, notched (-30 °C)	6.5	kJ/m ²	ISO 179-1/1eA
Heat deflection temperature B (0.45 MPa)	101	°C	ISO 75-2
Coefficient of thermal expansion (-30 °C/80 °C)	50	µm/mK	Borealis test method

* Data should not be used for specification work

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

Processing techniques

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:

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Processing setting	Typical value/range
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

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

Packaging and storage

Daplen EF120AE should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which can result in odour generation and colour changes and can have negative effects on the physical properties of this product.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency. Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

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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It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

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