Daplen™ EG203AE

Polypropylene

Borealis AG

Technical Data

Product Description

Daplen EG203AE is a 20% mineral and elastomer modified polypropylene compound intended for injection moulding.

Daplen EG203AE is a material with excellent impact / stiffness ratio. Thanks to its outstanding low thermal expansion this material is suitable to mould parts requiring a low change of dimensions over a broad temperature range with excellent surface aesthetics.

Daplen EG203AE is optimised to give high quality parts with the best production efficiency in combination with a broad processing window. To achieve a sufficient level of adhesion for painting or gluing, the use of flaming or other pre-treatment is necessary.

Automotive exterior applications:
- rocker panels
- exterior trims

General

Filler / Reinforcement	• Mineral, 20% Filler by Weight		
Features	• Good Impact Resistance • Good Stiffness	• Paintable • Recyclable Material	
Uses	• Automotive Applications	• Automotive Exterior Parts	• Automotive Exterior Trim
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	25	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
--	0.60	%	
90°C, 2 hr	0.10	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield, Injection Molded)	15.0	MPa	ISO 527-2/50
Flexural Modulus [2] (Injection Molded)	1250	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-20°C	5.0	kJ/m²	
23°C	35	kJ/m²	
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179/1eU
Notched Izod Impact Strength			ISO 180/1A
-20°C	4.5	kJ/m²	
23°C	32	kJ/m²	

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			ISO 75-2/B
0.45 MPa, Unannealed	105	°C	
CLTE - Flow (23 to 80°C)	0.000050	cm/cm/°C	ISO 11359-2

Additional Information

The values listed as Molding Shrinkage, ISO 294-4, were tested in accordance with Borealis test methods.
The value listed as CLTE, 11359-1, -2, was tested in accordance with DIN 53752.

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0	hr
Processing (Melt) Temp	220 to 260	°C
Mold Temperature	30.0 to 50.0	°C

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Injection	Nominal Value	Unit
Injection Rate	Slow-Moderate	

Injection Notes

Screw Speed: slow to medium
Holding Pressure: 50 to 70% of the injection pressure

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 5.0 mm/min