

Daplen™ EF103AE

Polypropylene

Borealis AG

Message:

Daplen EF103AE is a 10% mineral filled elastomer modified polypropylene compound intended for injection moulding. This material has excellent balanced mechanical properties, high melt flow rate and gives a good surface quality.

General Information			
Filler / Reinforcement	Mineral filler, 10% filler by weight		
Features	High liquidity		
	Excellent appearance		
Uses	Car anti-collision bar		
	Automotive exterior parts		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.970	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	16	g/10 min	ISO 1133
Molding Shrinkage			Internal method
-- ¹	0.85	%	Internal method
90°C, 2 hours	0.10	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1200	MPa	ISO 527-2/1
Tensile Stress (Yield)	18.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	8.0	%	ISO 527-2/50
Fracture	> 100	%	ISO 527-2/50
Flexural Modulus ²	1200	MPa	ISO 178
Flexural Stress	22.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C	5.4	kJ/m ²	ISO 179/1eA
-20°C	6.6	kJ/m ²	ISO 179/1A
23°C	46	kJ/m ²	ISO 179/1A
Charpy Unnotched Impact Strength			ISO 179/1U
-20°C	210	kJ/m ²	ISO 179/1U
23°C	No Break		ISO 179/1U
Notched Izod Impact			ISO 180/1A

-20°C	6.5	kJ/m ²	ISO 180/1A
23°C	44	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	83.0	°C	ISO 75-2/B
1.8 MPa, not annealed	48.0	°C	ISO 75-2/A
Vicat Softening Temperature	40.0	°C	ISO 306/B50
CLTE - Flow (23 to 80°C)	8.0E-5	cm/cm/°C	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	2.0	hr	
Hopper Temperature	40.0 - 80.0	°C	
Processing (Melt) Temp	220 - 260	°C	
Mold Temperature	30.0 - 50.0	°C	
Holding Pressure	30.0 - 60.0	MPa	
Injection instructions			
Back pressure: Low to mediumScrew speed: Low to mediumFlow front speed: 100 - 200 mm/s			
NOTE			
1.	disk		
2.	2.0 mm/min		

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