

Borealis PP MSC64T20

Polypropylene

Borealis AG

Technical Data

Product Description

MSC64T20 is a 20% talc filled grade intended for injection molding. This product is stabilized to have a good long term heat aging behavior and to resist outdoor weathering.

MSC64T20 has been developed especially for the car industry, to be used in applications requiring excellent long term heat aging resistance and resistance to outdoor weathering.

General

Filler / Reinforcement	• Talc, 20% Filler by Weight		
Additive	• UV Stabilizer		
Features	• Good Heat Aging Resistance	• Good UV Resistance	• Good Weather Resistance
Uses	• Automotive Applications	• Outdoor Applications	• Roof Vents
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
230°C/2.16 kg	12 g/10 min	12 g/10 min	
230°C/5.0 kg	50 g/10 min	50 g/10 min	
Molding Shrinkage	1.2 %	1.2 %	ISO 294-4

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress			ISO 527-2/50
Yield, 73°F (23°C), Injection Molded	4060 psi	28.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 73°F (23°C), Injection Molded	3.9 %	3.9 %	
Flexural Modulus ²			ISO 178
73°F (23°C), Injection Molded	377000 psi	2600 MPa	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-4°F (-20°C)	1.1 ft·lb/in ²	2.3 kJ/m ²	
73°F (23°C)	2.0 ft·lb/in ²	4.2 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-4°F (-20°C)	14 ft·lb/in ²	30 kJ/m ²	
73°F (23°C)	34 ft·lb/in ²	71 kJ/m ²	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	11000 psi	76.0 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	270 °F	132 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	147 °F	64.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	302 °F	150 °C	ISO 306/A50
--	176 °F	80.0 °C	ISO 306/B50

Additional Information

The value listed as Molding Shrinkage ISO 294-4 was tested in accordance with Borealis Method.
LTHA, Borealis Method, 150°C: >700 hr

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	3.0 hr	3.0 hr
Processing (Melt) Temp	410 to 500 °F	210 to 260 °C
Mold Temperature	86.0 to 122 °F	30.0 to 50.0 °C
Injection Rate	Moderate	Moderate



HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168