

Technical Information



MAGNUM™ 555 ABS Resin

Overview

MAGNUM™ 555 ABS resin is a high impact, low flow ABS resin frequently used in sheet extrusion applications. The material has medium gloss and is white in color, making it easy to color.

Applications

- Recreational vehicles
- Panels
- Signs

Complies with:

- U.S. FDA 21 CFR 181.32

Consult the regulations for complete details.

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
220°C/10.0 kg	8.0 g/10 min	8.0 g/10 min	
230°C/3.8 kg	2.4 g/10 min	2.4 g/10 min	
Molding Shrinkage	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ¹	334000 psi	2300 MPa	ASTM D638
--	334000 psi	2300 MPa	ISO 527-1/1
Tensile Strength			
Yield ²	6960 psi	48.0 MPa	ASTM D638
Yield	6960 psi	48.0 MPa	ISO 527-2/50
Tensile Elongation			
Yield ²	4.0 %	4.0 %	ASTM D638
Yield	3.5 %	3.5 %	ISO 527-2/50
Flexural Modulus			
-- ³	384000 psi	2650 MPa	ASTM D790
-- ⁴	377000 psi	2600 MPa	ISO 178
Flexural Strength			
-- ³	10200 psi	70.0 MPa	ASTM D790
-- ⁴	10400 psi	72.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
73°F (23°C), Injection Molded	16 ft-lb/in ²	33 kJ/m ²	
Notched Izod Impact (73°F (23°C))	7.9 ft-lb/in	420 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	201 °F	94.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	176 °F	80.0 °C	ISO 75-2/A
Vicat Softening Temperature	207 °F	97.0 °C	ISO 306/B50

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁵			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 194 °F	80 to 90 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 0.039 in/min (1.0 mm/min)

² 2.0 in/min (50 mm/min)

³ 0.051 in/min (1.3 mm/min)

⁴ 0.079 in/min (2.0 mm/min)

⁵ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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