

Technical Information



MAGNUM™ 3904 Smooth ABS Resin

Overview

MAGNUM™ 3904 Smooth is an extrusion / thermoforming resin developed for high impact and other technical applications.

The mass (continuous process) ABS technology ensures an ABS resin that combines excellent processability with a stable light base colour that is ideal for self-colouring.

The new MAGNUM* 'Smooth Series' resins have an ultra low particulate content, which results in a superb surface finish that will enable our customers to produce parts with excellent aesthetics at a lower total cost.

Applications

- Transportation
- Protective covers
- Sanitary ware
- Marine
- Signage
- Recreational vehicles
- Furnishings

Automotive Specifications

- CHRYSLER MS-DB-300 CPN4432 Color: Color As Noted On Drawing

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183
Apparent (Bulk) Density	0.65 g/cm ³	0.65 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.7 g/10 min	4.7 g/10 min	ISO 1133
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	264000 psi	1820 MPa	ISO 527-1/1
Tensile Stress (Yield)	5370 psi	37.0 MPa	ISO 527-2/50
Tensile Strain (Yield)	2.6 %	2.6 %	ISO 527-2/50
Flexural Modulus ¹	276000 psi	1900 MPa	ISO 178
Flexural Stress ¹	8410 psi	58.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength 73°F (23°C), Injection Molded	18 ft·lb/in ²	37 kJ/m ²	ISO 179/1eA
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed	207 °F	97.0 °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 ² 0.06 in (1.5 mm), Yellow Card available for EU and PAC locations only.	HB	HB	UL 94
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 0.079 in/min (2.0 mm/min)

² This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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