

MAGNUM™ 3904 SMOOTH PA ABS Resin

Overview

MAGNUM™ 3904 SMOOTH PA is an extrusion ABS resins developed for applications that have stringent requirements on gel quality and impact properties. The new MAGNUM SMOOTH series resins have an ultra-low particulate (gels) content, which results in a superb surface finish that will enable our customers to produce parts with excellent aesthetics at a lower total cost.

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

Complies with

- U.S. FDA FCN 1525
- Consult the regulation for complete detail

Applications:

- In-mold decorative films for Auto parts
- Electronic packaging
- Extrusion sheets for high-end sanitary ware, furnishings

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.5 g/10 min	4.5 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			
Yield ¹	4640 psi	32.0 MPa	ASTM D638
Yield	5080 psi	35.0 MPa	ISO 527-2/50
Break ¹	4060 psi	28.0 MPa	ASTM D638
Break	4060 psi	28.0 MPa	ISO 527-2/50
Tensile Elongation			
Break ¹	40 %	40 %	ASTM D638
Break	35 %	35 %	ISO 527-2/50
Flexural Modulus ²	276000 psi	1900 MPa	ASTM D790
Flexural Strength ²	8410 psi	58.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	16 ft-lb/in ²	34 kJ/m ²	ISO 179/1eA
Notched Izod Impact (73°F (23°C))	10 ft-lb/in	540 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed	201 °F	94.0 °C	
Vicat Softening Temperature	205 °F	96.0 °C	ISO 306/B50
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	176 to 194 °F	80 to 90 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	428 to 482 °F	220 to 250 °C	

Notes

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

¹ 2.0 in/min (50 mm/min)

² 0.051 in/min (1.3 mm/min)

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