



MAGNUM™ 3904 Ultra Smooth

Trinseo - ABS Resin

Sunday, November 3, 2019

General Information

Product Description

MAGNUM™ 3904 Ultra Smooth is a high impact ABS resin for extrusion / thermoforming. This grade, is Trinseo's lowest particulate (gels) content ABS grade, and is specially recommended for the most demanding surface finish applications.

Applications:

- Automotive Interior
- Furniture

General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• High Impact Resistance	• Pleasing Surface Appearance	
Uses	• Automotive Applications	• Automotive Interior Parts	• Furniture
Forms	• Pellets		
Processing Method	• Extrusion	• Thermoforming	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm ³	ISO 1183/B
Apparent (Bulk) Density	0.65	g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.7	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.40 to 0.70	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (0.157 in, Injection Molded)	264000	psi	ISO 527-2
Tensile Stress (Yield, 0.157 in, Injection Molded)	5370	psi	ISO 527-2/50
Tensile Strain (Yield, 0.157 in, Injection Molded)	2.6	%	ISO 527-2/50
Flexural Modulus ^{2, 3} (0.157 in, Injection Molded)	276000	psi	ISO 178
Flexural Stress ^{2, 3} (0.157 in, Injection Molded)	8410	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F, Injection Molded	8.6	ft·lb/in ²	
73°F, Injection Molded	16	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Annealed)	207	°F	ISO 75-2/A
Vicat Softening Temperature	207	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Burning Rate ⁴ (0.0787 in)	1.6	in/min	ISO 3795
Flame Rating ⁴			UL 94
0.06 in		HB	
0.12 in		HB	

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Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 3-points

⁴ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.