MAGNUM™ 3904 Smooth

Trinseo - ABS Resin

Sunday, November 3, 2019

General Information

Product Description

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

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• Good Processability	• High Impact Resistance	• Pleasing Surface Appearance
Uses	• Furniture	• Marine Applications	• Protective Coverings
Automotive Specifications	• CHRYSLER MS-DB-300 CPN4432 Color: Color As Noted On Drawing		
Forms	• Pellets		
Processing Method	• Extrusion	• Thermoforming	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm³	ISO 1183/B
Apparent (Bulk) Density	0.65	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.7	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	4.70	cm³/10min	ISO 1133
Molding Shrinkage - Flow	0.40 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (0.126 in, Injection Molded)	264000	psi	ISO 527-2
Tensile Stress			
Yield, 0.126 in, Injection Molded	5370	psi	ISO 527-2/50
Yield, 0.126 in, Injection Molded	5660	psi	ISO 527-2/100
Tensile Strain			
Yield, 0.126 in, Injection Molded	2.6	%	ISO 527-2/50
Yield, 0.126 in, Injection Molded	2.8	%	ISO 527-2/100
Flexural Modulus [2, 3] (0.126 in, Injection Molded)	276000	psi	ISO 178
Flexural Stress [2, 3] (0.126 in, Injection Molded)	8410	psi	ISO 178

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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-22°F, Injection Molded	8.6	ft·lb/in²	ISO 179/1eA
-22°F, Injection Molded	5.7	ft·lb/in²	ISO 179/2C
73°F, Injection Molded	18	ft·lb/in²	ISO 179/1eA
73°F, Injection Molded	10	ft·lb/in²	ISO 179/2C
Notched Izod Impact Strength			ISO 180/A
-22°F, Injection Molded	8.1	ft·lb/in²	
73°F, Injection Molded	20	ft·lb/in²	

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		

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.