

Technical Information



MAGNUM™ 375 HP ABS Resin

Overview

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MAGNUM™ 375HP is a High Heat, Low Gloss, Medium Impact ABS resin for injection molded automotive interior trim applications.

Benefits:

- Lot to lot consistency allowing for optimal machine parameters settings from the start
- Low VOC allowing a better interior air quality facing increasing regulatory and OEMs constraints.
- Heat stability during wide range of processing temperatures: enhanced part design freedom

Applications:

- Main interior and exterior automotive applications
- Mid-consoles
- Door panels
- Door handles
- Pillars

Automotive Specifications

- 3M 11-0003-5762-1
- CHRYSLER MS-DB-191 CPN 3826
- CHRYSLER MS-DB-300 CPN 4573
- GM GMW15572P-ABS-T2
- VOLKSWAGEN TL 527
- CHRYSLER MS-DB-191 CPN 1734
- CHRYSLER MS-DB-300 CPN 4412
- FORD WSS-M4D690-B1
- TOYOTA TSM 5512G-2B

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	0.68 g/cm ³	0.68 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	7.0 g/10 min	7.0 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	305000 psi	2100 MPa	ISO 527-1/1
Tensile Stress (Yield)	6960 psi	48.0 MPa	ISO 527-2/50
Tensile Strain (Yield)	4.3 %	4.3 %	ISO 527-2/50
Flexural Modulus ^{1, 2}	319000 psi	2200 MPa	ISO 178
Flexural Stress ^{1, 3}	9280 psi	64.0 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	9.5 ft-lb/in ²	20 kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-22°F (-30°C)	4.8 ft-lb/in ²	10 kJ/m ²	
73°F (23°C)	12 ft-lb/in ²	25 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	216 °F	102 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	185 °F	85.0 °C	ISO 75-2/A
Vicat Softening Temperature	225 °F	107 °C	ISO 306/B50

Additional Information

Tests conducted on 0.125 inch (3.2 mm) injection molded specimen, unannealed, unless noted.

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 3-points

³ 3-point

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