

MAGNUM™ 375 HH ABS Resin

Overview High Heat, Low Gloss, Medium Impact ABS resin for injection molding

Applications:

- Automotive interior trim applications requiring low volatile organic compounds (VOC).

Automotive Specifications

- CHRYSLER MS-DB-191
- CHRYSLER MS-DB-300
- VAG VW-TL 527
- VAG VW-TL 527 A
- VAG VW-TL 527 B

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.06 g/cm ³	1.06 g/cm ³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.1 g/10 min	2.1 g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	5.7E-3 in/in	0.57 %	
Across Flow	5.6E-3 in/in	0.56 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- 1	334000 psi	2300 MPa	ASTM D638
--	338000 psi	2330 MPa	ISO 527-2/50
Tensile Strength			
Yield 1	7100 psi	49.0 MPa	ASTM D638
Yield	6820 psi	47.0 MPa	ISO 527-2/50
Tensile Elongation			
Yield 1	3.1 %	3.1 %	ASTM D638
Yield	2.9 %	2.9 %	ISO 527-2/50
Break 1	8.8 %	8.8 %	ASTM D638
Break	3.5 %	3.5 %	ISO 527-2/50
Flexural Modulus			
-- 2	349000 psi	2410 MPa	ASTM D790
-- 3, 4	334000 psi	2300 MPa	ISO 178
Flexural Strength			
-- 2	11100 psi	76.5 MPa	ASTM D790
-- 3, 4	10400 psi	71.7 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	5.2 ft-lb/in ²	11 kJ/m ²	
73°F (23°C)	10 ft-lb/in ²	22 kJ/m ²	
Notched Izod Impact			
-22°F (-30°C)	2.5 ft-lb/in	130 J/m	ASTM D256
73°F (23°C)	4.1 ft-lb/in	220 J/m	ASTM D256
-22°F (-30°C)	4.8 ft-lb/in ²	10 kJ/m ²	ISO 180/A
73°F (23°C)	7.6 ft-lb/in ²	16 kJ/m ²	ISO 180/A
Instrumented Dart Impact			ASTM D3763
-22°F (-30°C), Peak Energy	204 in-lb	23.0 J	
73°F (23°C), Peak Energy	266 in-lb	30.1 J	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	211 °F	99.4 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	208 °F	98.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	179 °F	81.7 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	183 °F	84.0 °C	ISO 75-2/A
Vicat Softening Temperature	221 °F	105 °C	ISO 306/B50 ASTM D1525 ⁵
CLTE			ASTM E831
Flow : -40 to 212°F (-40 to 100°C)	4.3E-5 in/in/°F	7.7E-5 cm/cm/°C	
Transverse : -40 to 212°F (-40 to 100°C)	5.3E-5 in/in/°F	9.5E-5 cm/cm/°C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
FMVSS Flammability ⁶	1.2 in/min	30 mm/min	FMVSS 302
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	180 to 185 °F	82 to 85 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Rear Temperature	460 °F	238 °C	
Middle Temperature	480 °F	249 °C	
Front Temperature	489 °F	254 °C	
Nozzle Temperature	480 to 489 °F	249 to 254 °C	
Processing (Melt) Temp	469 to 520 °F	243 to 271 °C	
Mold Temperature	100 to 151 °F	38 to 66 °C	