

MAGNUM™ 275

ABS Resin

Overview

MAGNUM™ 275 ABS resin is a low gloss, low flow ABS resin with good impact. MAGNUM ABS resins are thermoplastic materials that provide an excellent balance of processability, impact resistance, and heat resistance as imparted by the various polymer compositions. MAGNUM ABS resins are available in a wide range of melt flow rates, impact strengths, and heat resistances for both high and low gloss applications manufactured by injection molding, sheet or profile extrusion, and thermoforming. MAGNUM ABS resins offer a wide range of processing abilities and impact resistance for low gloss injection molding applications. Combined with heat resistance, tensile and flexural strength, MAGNUM ABS resins are used in a wide variety of injection molding applications.

Applications

- Injection molding applications
- Extrusion and thermoforming applications

Complies with:

- U.S. FDA 21 CFR 181.32

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm ³	1.04 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.6 g/10 min	2.6 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹	265000 psi	1830 MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	5400 psi	37.2 MPa	
Break	5000 psi	34.5 MPa	
Tensile Elongation ²			ASTM D638
Yield	3.0 %	3.0 %	
Break	100 %	100 %	
Flexural Modulus ³	295000 psi	2030 MPa	ASTM D790
Flexural Strength ³	9200 psi	63.4 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact ⁴			ASTM D256
0°F (-18°C), 0.126 in (3.20 mm)	2.5 ft-lb/in	130 J/m	
73°F (23°C), 0.126 in (3.20 mm)	5.0 ft-lb/in	270 J/m	
Instrumented Dart Impact			ASTM D3763
0°F (-18°C), Peak Energy	290 in-lb	32.8 J	
0°F (-18°C), 0.126 in (3.20 mm), Total Energy ⁵	330 in-lb	37.3 J	
73°F (23°C), Peak Energy	290 in-lb	32.8 J	
73°F (23°C), 0.126 in (3.20 mm), Total Energy ⁵	410 in-lb	46.3 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.126 in (3.20 mm)	200 °F	93.3 °C	
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	175 °F	79.4 °C	
Vicat Softening Temperature	225 °F	107 °C	ASTM D1525

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁶ (0.06 in (1.5 mm))	HB	HB	UL 94

Notes

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

¹ 39 in/min (1000 mm/min)

² Type I, 2.0 in/min (51 mm/min)

³ Type I, 79 in/min (2000 mm/min)

⁴ 10 mil (0.25 mm) Notch Depth

⁵ 11.1 ft/sec (3.39 m/sec)

⁶ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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