

MAGNUM™ 3404 ABS Resin

Overview

MAGNUM™ 3404 is an excellent general purpose extrusion / thermoforming resin with outstanding processability. It combines medium impact with medium-high heat performance. 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.

Applications:

- Medium impact monosheet
- Co-extruded sheets

Complies with:

U.S. FDA 21 CFR 181.32(a)(3)(i)
(See Notes)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR)			
220°C/10.0 kg	6.6 g/10 min	6.6 g/10 min	ASTM D1238 ISO 1133
220°C/5.0 kg	1.9 g/10 min	1.9 g/10 min	ASTM D1238
230°C/3.8 kg	2.0 g/10 min	2.0 g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	6.70 cm ³ /10min	6.70 cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	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	ASTM D638
0.126 in (3.20 mm), Injection Molded	312000 psi	2150 MPa	ISO 527-2
Tensile Strength			
Yield	6670 psi	46.0 MPa	ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	6240 psi	43.0 MPa	ISO 527-2/50
Tensile Elongation			
Yield	4.1 %	4.1 %	ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	2.7 %	2.7 %	ISO 527-2/50
Flexural Modulus			
--	365000 psi	2520 MPa	ASTM D790
0.126 in (3.20 mm), Injection Molded ^{1, 2}	305000 psi	2100 MPa	ISO 178
Flexural Stress			
0.126 in (3.20 mm), Injection Molded ^{1, 2}	10200 psi	70.0 MPa	ISO 178
Yield	9750 psi	67.2 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			
-22°F (-30°C), Injection Molded	3.8 ft·lb/in ²	8.0 kJ/m ²	ISO 179/2C
-22°F (-30°C), Injection Molded	6.2 ft·lb/in ²	13 kJ/m ²	ISO 179/1eA
73°F (23°C), Injection Molded	8.6 ft·lb/in ²	18 kJ/m ²	ISO 179/1eA
73°F (23°C), Injection Molded	6.2 ft·lb/in ²	13 kJ/m ²	ISO 179/2C
Notched Izod Impact			
73°F (23°C)	4.3 ft·lb/in	230 J/m	ASTM D256
-22°F (-30°C), Injection Molded	5.2 ft·lb/in ²	11 kJ/m ²	ISO 180/A
73°F (23°C), Injection Molded	9.0 ft·lb/in ²	19 kJ/m ²	ISO 180/A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
264 psi (1.8 MPa), Annealed	214 °F	101 °C	ISO 75-2/A
Vicat Softening Temperature			
	216 °F	102 °C	ASTM D1525 ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ³ (0.0787 in (2.00 mm))			
	2.0 in/min	50 mm/min	ISO 3795
Flame Rating ³			
			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gardner Gloss (60°)			
	74	74	ASTM D523

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



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