

Technical Information



MAGNUM™ 8391 MED ABS Resin

Overview

MAGNUM™ 8391 MED ABS combines an excellent glossy appearance with high flow and medium impact performance. The mass (continuous process) ABS technology ensures an ABS resin that combines excellent processability with a stable light base color that is ideal for self-coloring. MAGNUM 8391 MED natural resin has undergone biocompatibility testing based on ISO 10993 (Biological Evaluation of Medical Devices) and is suitable for use in approved medical applications. Pre-colored and custom colored products are also options.

Medical Applications:
Portable device housings
Drug delivery devices
Inhaler housings

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	0.65 g/cm ³	0.65 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	28 g/10 min	28 g/10 min	
230°C/3.8 kg	8.0 g/10 min	8.0 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	339000 psi	2340 MPa	ISO 527-1/1
Tensile Stress (Yield)	6530 psi	45.0 MPa	ISO 527-2/50
Tensile Strain (Yield)	2.5 %	2.5 %	ISO 527-2/50
Flexural Modulus ¹	348000 psi	2400 MPa	ISO 178
Flexural Stress ¹	10200 psi	70.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C), Injection Molded	4.3 ft-lb/in ²	9.0 kJ/m ²	
73°F (23°C), Injection Molded	7.6 ft-lb/in ²	16 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi (1.8 MPa), Annealed	203 °F	95.0 °C	
Vicat Softening Temperature	203 °F	95.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ²			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

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

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