

MAGNUM™ 3453

ABS Resin

Overview

MAGNUM* 3453 ABS is a general purpose injection moulding resin suitable for a wide range of applications. The product combines a medium to high impact performance with good flowability.

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:

- Household appliances
- Telephones
- Electrical and computer equipment
- Consumer goods
- Toys

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/B
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	15 g/10 min	15 g/10 min	
230°C/3.8 kg	5.0 g/10 min	5.0 g/10 min	
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			ISO 527-2
0.126 in (3.20 mm), Injection Molded	331000 psi	2280 MPa	
Tensile Stress			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	6530 psi	45.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	2.5 %	2.5 %	
Flexural Modulus ^{1,2}			ISO 178
0.126 in (3.20 mm), Injection Molded	334000 psi	2300 MPa	
Flexural Stress ^{1,2}			ISO 178
0.126 in (3.20 mm), Injection Molded	9860 psi	68.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C), Injection Molded	4.8 ft-lb/in ²	10 kJ/m ²	
73°F (23°C), Injection Molded	9.5 ft-lb/in ²	20 kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
-22°F (-30°C), Injection Molded	4.3 ft-lb/in ²	9.0 kJ/m ²	
73°F (23°C), Injection Molded	9.0 ft-lb/in ²	19 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	212 °F	100 °C	
Vicat Softening Temperature	207 °F	97.0 °C	ISO 306/B50

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ³ (0.0787 in (2.00 mm))	2.2 in/min	55 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	
Carbon Emission ³	25.0 µg/g	25.0 µg/g	VDA 277
Fogging ³	97 %	97 %	ISO 294-4

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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