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 impact performance with good flowability.

The mass (continuous process) ABS technology of Styron 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/cm³	1.05	g/cm³	ISO 1183/B
Apparent Density	0.65	g/cm³	0.65	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	15	g/10 min	15	g/10 min	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					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					ISO 178 [1, 2]
0.126 in (3.20 mm), Injection Molded	334000	psi	2300	MPa	
Flexural Stress					ISO 178 [1, 2]
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/in²	10	kJ/m²	
73°F (23°C), Injection Molded	9.5	ft·lb/in²	20	kJ/m²	
Notched Izod Impact Strength					ISO 180/A
-22°F (-30°C), Injection Molded	4.3	ft·lb/in²	9.0	kJ/m²	
73°F (23°C), Injection Molded	9.0	ft·lb/in²	19	kJ/m²	
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 (0.0787 in (2.00 mm))	2.2	in/min	55	mm/min	ISO 3795 [3]
Flame Rating					UL 94 [3]
0.0591 in (1.50 mm)	HB		HB		
0.118 in (3.00 mm)	HB		HB		
Carbon Emission	25.0	µg/g	25.0	µg/g	VDA 277 [3]
Fogging	97	%	97	%	ISO 294-4 [3]

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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