

## MAGNUM™ 3504

### ABS Resin

#### Overview

MAGNUM\* 3504 is a general purpose resin and can be used for both injection moulding and extrusion applications. This grade combines high impact with medium-high heat resistance. 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:

- General purpose extrusion and injection moulding applications

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm <sup>3</sup>	1.05 g/cm <sup>3</sup>	ISO 1183/B
Apparent (Bulk) Density	0.65 g/cm <sup>3</sup>	0.65 g/cm <sup>3</sup>	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	5.2 g/10 min	5.2 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	0.323 in <sup>3</sup> /10min	5.30 cm <sup>3</sup> /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			ISO 527-2
0.126 in (3.20 mm), Injection Molded	310000 psi	2140 MPa	
Tensile Stress			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	6240 psi	43.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	2.7 %	2.7 %	
Flexural Modulus <sup>1,2</sup>			ISO 178
0.126 in (3.20 mm), Injection Molded	297000 psi	2050 MPa	
Flexural Stress <sup>1,2</sup>			ISO 178
0.126 in (3.20 mm), Injection Molded	9430 psi	65.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			
-22°F (-30°C), Injection Molded	6.2 ft-lb/in <sup>2</sup>	13 kJ/m <sup>2</sup>	ISO 179/1eA
-22°F (-30°C), Injection Molded	4.3 ft-lb/in <sup>2</sup>	9.0 kJ/m <sup>2</sup>	ISO 179/2C
73°F (23°C), Injection Molded	11 ft-lb/in <sup>2</sup>	23 kJ/m <sup>2</sup>	ISO 179/1eA
73°F (23°C), Injection Molded	7.1 ft-lb/in <sup>2</sup>	15 kJ/m <sup>2</sup>	ISO 179/2C
Notched Izod Impact Strength			ISO 180/1A
-22°F (-30°C), Injection Molded	5.7 ft-lb/in <sup>2</sup>	12 kJ/m <sup>2</sup>	
73°F (23°C), Injection Molded	12 ft-lb/in <sup>2</sup>	25 kJ/m <sup>2</sup>	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	214 °F	101 °C	
Vicat Softening Temperature	216 °F	102 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate <sup>3</sup> (0.0787 in (2.00 mm))	2.2 in/min	55 mm/min	ISO 3795
Flame Rating <sup>3</sup>			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Carbon Emission	30.0 µg/g	30.0 µg/g	VDA 277
Fogging <sup>3</sup>	98 %	98 %	ISO 6452

**Notes**

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

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<sup>1</sup> 0.079 in/min (2.0 mm/min)

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<sup>2</sup> 3-points

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<sup>3</sup> This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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