

MAGNUM™ A533

ABS Resin

Overview

MAGNUM™ A533 is a good flow ABS resin with excellent processing characteristics and a matt surface finish. Produced by MASS (continuous process) polymerization technology, this material offers a low emission and low odor performance even in a wide range of processing window. Its stable light base color makes it an ideal candidate for self-coloring process to reduce the total production cost.

- Applications:

- Matt/unpainted automotive interior trims
- Door liners
- Dashboard components
- Pillar covers
- Consoles
- Glove boxes

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) (220°C/10.0 kg)	9.0 g/10 min	9.0 g/10 min	ISO 1133
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	268000 psi	1850 MPa	ISO 527-1/1
Tensile Stress (Yield)	5800 psi	40.0 MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	3.5 %	3.5 %	
Break	20 %	20 %	
Flexural Modulus ¹	276000 psi	1900 MPa	ISO 178
Flexural Stress ¹	8410 psi	58.0 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	4.8 ft-lb/in ²	10 kJ/m ²	
73°F (23°C), Injection Molded	7.1 ft-lb/in ²	15 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	203 °F	95.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	176 °F	80.0 °C	ISO 75-2/A
Vicat Softening Temperature	212 °F	100 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ²	60.0 min/mm	60.0 min/mm	ISO 3795
Carbon Emission ²	30.0 µg/g	30.0 µg/g	VDA 277
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Fogging - (100C)	98 %	98 %	ISO 6452
Mass balance versions (bio-based (BIO) or chemically recycled (CR)) of this product are chemically and physically indistinguishable to the standard fossil grade. This technical data sheet applies to all versions. Letters of sameness are available upon request.			
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 is not intended to reflect hazards presented by this or any other material under actual fire conditions.

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