

Technical Data Sheet

POLYMAN[®] ABS 1012

Acrylonitrile Butadiene Styrene
Engineering Plastics

Product Description

ABS industrial quality. The product can contain up to 5% mineral substances.

General

Processing Method	• Injection Molding
Resin ID (ISO 1043)	• ABS

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.06 g/cm ³	1.06 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	27 cm ³ /10min	27 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	363000 psi	2500 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	6090 psi	42.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	2.5 %	2.5 %	ISO 527-2/1A/50
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	4.8 ft·lb/in ²	10 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	17 ft·lb/in ²	36 kJ/m ²	ISO 179/1eU
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	15400 psi	106 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	185 °F	85.0 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	165 °F	74.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	214 °F	101 °C	ISO 306/A50
--	203 °F	95.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302

Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

Notes

These are typical property values not to be construed as specification limits.