

Technical Data Sheet

ABS natural

ABS

Typical Properties

- High impact strength
- Good machinability
- Good printability and bonding properties
- Economical standard plastic

Typical Industries

- Mechanical Engineering
- Consumer Goods Industry
- Electrical Industry

	Test Method	Unit	Value
General Properties			
Density	DIN EN ISO 1183-1	g / cm ³	1.04
Water absorption	DIN EN ISO 62	%	0.30
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB / HB
Mechanical Properties			
Yield stress	DIN EN ISO 527	MPa	38
Elongation at break	DIN EN ISO 527	%	50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	2.000
Notched impact strength	DIN EN ISO 179	kJ / m ²	25.0
Ball indentation hardness	DIN EN ISO 2039-1	MPa	90
Shore hardness	DIN EN ISO 868	scale D	74
Thermal Properties			
Thermal conductivity	DIN 52612-1	W / (m * K)	0.17
Thermal capacity	DIN 52612	kJ / (kg * K)	1.20
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	90
Service temperature, long term	Average	°C	-40 ... 80
Service temperature, short term (max.)	Average	°C	100
Electrical Properties			
Dielectric constant	IEC 60250		3.1
Dissipation factor	IEC 60250		0.015

	Test Method	Unit	Value
Volume resistivity	DIN EN 62631-3-1	$\Omega \cdot \text{cm}$	10^{15}
Surface resistivity	DIN EN 62631-3-2	Ω	10^{14}

The specified values are average values obtained from individual measurements and are up to the latest standards. They are intended merely as information about our products and as an aid to the selection of material. We therefore cannot legally bindingly vouch for specific properties or suitability for specific purposes, as properties may also depend, for example, on the dimensions of the semi-finished products. The short-time maximum operating temperature applies only to applications that involve a low mechanical load during a few hours only. The long-term maximum operating temperature is based on the heat-ageing of the plastics through oxidation, which results in a reduction of the mechanical properties. On thick-walled parts only the surface layer - which can be better protected by the addition of antioxidants - is affected by oxidation at high temperatures. The core normally remains unimpaired. The short-term and long-term maximum operating temperatures depend on pressure and media. The minimum operating temperature is mainly determined by possible impact and shock stresses during operation. The specified values apply to low stresses.

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