

ABS

Material Information



ABS

Product full identity:

Acrylonitrile Butadiene Styrene

ABS offers thermal and dimensional stability, high-impact strength, and chemical resistance. Ideal for model construction, galvanised components, and other high-impact applications, it provides a reliable performance in demanding environments.

Properties

- Good mechanical strength and stiffness
- Scratch resistant
- High dimensional stability
- High surface and impact strength
- Wide temperature range (+70 to -50°C)
- Food contact approved

Applications

- Model Construction
- Galvanised Components
- High-Impact Applications

Forms



Solid Rod

ABS

Technical Properties



Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183	1.05
Water absorption until saturation at 23°C	%	ISO 62	1.00
Maximum service temp. Upper temp limit – short term	°C	-	70
Maximum service temp. Upper temp limit – long term	°C	-	-
Lower temp limit	°C	-	-50
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	ISO 572-2	55
Elongation at yield	%	ISO 572-2	5
Tensile strength at break	MPa	ISO 572-2	40
Unnotched impact strength	kJ/m ²	-	-
Notch impact strength	kJ/m ²	ISO 179/1eA	25
Ball indentation / Rockwell hardness	MPa	ISO 2039-1	98/M114
Shore-D		ISO 868	70
Flexural modulus of elasticity	MPa	ISO 178	2500
Tensile modulus of elasticity	MPa	ISO 527-2	2600
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	ISO 306	101
Heat deflection temperature HDT/B	°C	ISO 75-2	80
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	ISO 11359	0.2
Thermal conductivity at 23°C	W/mK	DIN 52612	0.2
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 60093	10 ¹⁵
Surface resistivity	Ω	IEC 60093	10 ¹⁵
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 1MHz		IEC 60250	2.6
Dielectric loss factor at 1MHz		IEC 60250	0.008
Dielectric strength	kV/mm	IEC 60243-1	18
Comparative tracking index (CTI)		IEC 60112	600
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA (Natural)	Yes
Food compliance – EU		EU 10/2011	Yes
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		UL 94	HB
Optical	Unit	Test Method	Result
N/A	N/A	N/A	N/A

All information provided in this Product Datasheet is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.