Data Sheet

ABS

Alternative Designations

Acrylonitrile Butadiene Styrene

Key Features

High rigidity and dimensional stability • Resistant to impact and scratches

Description

This is a thermoplastic material widely known for its high resistance to impact and toughness. In addition, it has good scratch resistance and rigidity as well as a low melting point and high weldability. With a high strength–to–weight ratio, it is well suitable for injection moulding. It is used in the manufacturing, automotive, and marine industries.

Mechanical Properties

Tensile modulus	2270 MPa
Tensile strength	46 MPa
Elongation at break	48%
Flexural strength	69 MPa
Flexural modulus	23.5 GPa
Hardness (Shore D)	68 – 118

Thermal Properties

Melting temperature (20°C/min)	221 – 227°C
Heat deflection temperature (1.80 MPa)	97°C
Softening temperature	95°C

Physical Properties

Density	1.06 g/cm^3

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.