

# 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 MPa
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 <sup>3</sup>
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## Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://Materialdatacenter.com) for further information on this material.