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

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|---|---|
| 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$^3$ |

## 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.