Data Sheet

Acrylic

Alternative Designations

PMMA

Key Features

Hard • Resistant to weather and chemicals • Transparent • Durable

Description

This material is the most common form of clear, moldable thermoplastic, often used in place of glass due to its higher resistance. It has good weather and chemical resistance with adequate surface hardness. Acrylic has easy moldability and can be formed into various shapes and sizes. It is used for transparent applications such as windows, frames etc.

Mechanical Properties

Tensile modulus	2413 – 3447 MPa
Tensile strength	55.1 – 75.8 MPa
Elongation at break	2%
Flexural strength	82.7 – 117.2 MPa
Flexural modulus	5.51 – 7.58 GPa
Hardness (Shore D)	98

Thermal Properties

Heat deflection temperature (1.80 MPa)	65 – 100°C
Softening temperature	105 – 118°C

Physical Properties

Density	1.18 – 1.19 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.