

PMMA, or polymethyl methacrylate, is a transparent thermoplastic commonly known as acrylic. It is a versatile material that offers excellent optical clarity, high impact resistance, and weatherability. PMMA is widely used in various applications, including automotive lighting, signage, displays, optical lenses, and architectural glazing.

Chemical Description

Description	Value
Material Type	Amorphous Thermoplastic
Chemical Name	PMMA, Polymethyl Methacrylate
Additives	Unfilled
Color	Transparent Clear
UV Resistant	Yes

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.043
Water Absorption, 24 hrs, Immersion,% by wt.	0.3
Coefficient of Linear Thermal Expansion, x10 ⁻⁵ in./in./°F	5-9
Heat Deflection Temp,°F at 263psi	210
Max Continuous Operating Temp,°F	150-200
Dielectric Strength,V/mil	400
Thermal Conductivity,BTU-in/ft ² -hr-°F	3.9

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	10
Tensile Modulus,ksi	400
Compressive Strength,ksi	14
Flexural Strength,ksi	14
Flexural Modulus,ksi	400
Elongation at Break	2%
Hardness Rockwell M	80-100
Notched Izod Impact Strength,ft-lb/in	0.3

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.