# PMMA (Acrylic)

PMMA is a translucent rigid plastic, often used as a substitute for glass and when high transparency is needed, a high polishing process can be done to achieve this.

## Mechanical properties

| | |
|---|---|
| Ultimate tensile strength | 55 - 83 MPa |
| Yield strength | 64 -80 MPa |
| Young's modulus (modulus of elasticity) | 2.76 - 3.3 GPa |
| Elongation at break | 3 - 6.4 % |
| Hardness | 64 - 105 HRM |

## Physical properties

| | |
|---|---|
| UV resistance | Excellent |

## Thermal properties

| | |
|---|---|
| Maximum service temperature | 70 - 80 °C |
| Thermal expansion coefficent | 50 - 90 10^-6/ºC |
| Thermal conductivity | 0.19 - 0.2 W/(m·°C) |

## Electrical properties

| | |
|---|---|
| ESD Safety | Possible |

## Common applications

| | |
|---|---|
| Food industry | |
| Lamps and lighting soffits | |
| Displays | |
| Hand rails | |

**PMMA (Acrylic) CNC Machining Applications & Parts**

Acrylic is prized for its brilliant optical clarity, excellent weatherability, and good stiffness. We precision machine and finish it to create stunning transparent parts, signs, and prototypes.

**Typical Parts We Machine from PMMA:**

- **Display & Signage:** Light Diffusers, Nameplates, Museum Display Cases
- **Optical & Lens:** Light Pipes, Lens Prototypes, Sight Glasses, Windows
- **Architectural & Retail:** Custom Fixtures, Product Display Stands, Decorative Panels

**Our Machining Advantage:**

We achieve glass-like clarity in machined acrylic through specialized tooling and meticulous polishing techniques, delivering parts free from clouding, cracks, or internal stress.

**Get an Instant Quote for your custom Acrylic parts today.**