

Technical Data Sheet Polymethyl Methacrylate – hard coated (HC)

PMMA Optical HC (PLEXIGLAS® Optical HC)

Extruded PMMA sheet with one-sided scratch- and chemical-resistant hard coating

Typical Properties

- High light transmission and brilliance
- Easy processability
- High surface hardness
- Low weight, half that of glass
- High impact resistance, 11 times that of glass
- Excellent surface appearance
- Outstanding resistance to wear and chemicals
- Almost complete opacity to UV radiation

Typical Industries

- Furniture, shopfitting and trade-show construction
- Large-area wall paneling
- Marker boards
- Picture glazing
- Museum and store display cases
- Electronic displays
- Aviation industry
- Industrial glazing
- Signage

	Test Method	Unit	Value
General Properties			
Light transmission	DIN 5036	%	92
Yellowing	DIN 5036	%	< 0.5
Standard sheet size	Manufacturer data		3050 × 2050 mm
Thickness	Manufacturer data	mm	2 – 8
Mechanical Properties			
Tensile strength	DIN EN ISO 527	MPa	67.5 (uncoated: 72)
Modulus of elasticity	DIN EN ISO 527	MPa	3450 (uncoated: 3300)
Charpy impact strength	DIN EN ISO 527	kJ / m ²	10 (uncoated: 15)
Thermal Properties			
Vicat softening point	ISO 306, Method B50	°C	106 (uncoated: 103)
Building Material Classification			
Building material class	DIN 4102		B2

	Test Method	Unit	Value
Building material class	DIN EN 13501		E
Toxicity	AITM 3.0005		Requirements satisfied
Smoke density	AITM 2.0007 / FAR 25.853		Requirements satisfied
Abrasion and Coating Properties			
Abrasion resistance (abrasive wheel method, 100 cycles, 4.9 N, CS-10F)	ISO 9352	% Haze	< 3 (uncoated: 20 – 30)
Falling sand test	DIN 52348		2.3 (uncoated: 22)
Pencil hardness	DIN EN 13523-4		5H (uncoated: 2H)
Micro-scratch resistance	IHD-W-466		Class 1
Coating adhesion	DIN EN ISO 2409		GT 0

The values stated are typical average values for PMMA sheets with a one-sided hard coating. The comparison values given in brackets refer to the uncoated variant of the same base material. They serve only as information about our products and as an aid to material selection. We do not legally warrant any specific properties or suitability for a particular purpose. As the properties also depend on the dimensions of the semi-finished stock and the manufacturing conditions, the actual property values of a specific product may deviate somewhat from the data.