

Product identification

Hammerglass is a durable and abrasion resistant polycarbonate, further developed through nano-technology providing a unique surface coating of silicone oxide.

Chemical resistance

The Hammerglass sheets are coated with a silicon oxide treatment for excellent chemical resistance and vandal protection. The surface will withstand attacks from acetone, petrol, White Spirit, paint- and graffiti-removals.

Light transmission

Hammerglass is extruded in clean room environments which gives the sheets an outstanding clarity. The triple quality control guarantees High end quality. The coating enhances the light transmission.

Physical properties

Property	Unit	Value	Standard
Density (half the weight of glass)	g/cm ³	1,20	ISO 1183
Light transmission (Light source D65, thickness 1mm)	%	88	DIN 5036, T.3
UV-protection	%	99,96	SIKA
Refractive index		1,586	ISO 489
Moisture absorption 24 hours 23 °C, 50% RH	%	0,15	
Recommended range of temperature usage	°C	Min -40 °C	Max +90 °C

Mechanical properties

Property	Unit	Value	Standard
Tensile strength at yield	N/mm ²	63	ISO 527
Tensile strength at break	N/mm ²	70	ISO 527
Elongation at yield	%	6	ISO 527
Elongation at break	%	110	ISO 527
Elastic modules	N/mm ²	2300	ISO 527
Flexural modules	N/mm ²	2300	ISO 178
Charpy unnotched impact break +23 °C	kJ/m ²	No break	ISO 179/2D
Izod notched impact break -40 °C	kJ/m ²	11,5	ISO 179/2D
Rockwell hardness		95	ISO 20392

Thermal properties

Property	Unit	Value	Standard
Linear coefficient of thermal expansion (23-80 °C)	10 ⁻⁴ K ⁻¹	0,70	
Heat deflection temperature A (1,80 N/mm ²)	°C	132	ISO 75
B (0,45 N/mm ²)	°C	142	ISO 75

Acoustic properties

Property	Unit	Value
Thickness (mm) 6	Rw-value dB	29
Thickness (mm) 8	Rw-value dB	31
Thickness (mm) 10	Rw-value dB	32
Thickness (mm) 12	Rw-value dB	34
Thickness (mm) 15	Rw-value dB	35
Thickness (mm) 17	Rw-value dB	36

Flammability

Warrington Fire Institute, test according to BS 476, part 7, Class 1Y: "The flaming material fell down to the floor of the laboratory where it self extinguished after 30 seconds."

Conclusion: Hammerglass will eventually melt, but does not contribute to spread of flames.

Delivery program

Thickness:	6, 8, 10, 12, 15, 17 and 20 mm.
Standard sheets:	2000x3000 mm, available up to 2000x6000 mm.
Standard colour:	Clear. Available in most colours, both opaque and opal.
Special feature:	IR-absorbing. Absorbs up to 50% of solar IR-radiation. Available as standard in 6 and 8 mm green, and 12 mm gray (smoke).

All sheets are available as one side coated, with or without silk printing. Printed sheets are coated after printing.