

Metacrilato

Technical Data Sheet

PERSPEX® CAST

 PERSPEX®
 FROM LUCITE®

Perspex® from Lucite® Technical Data Sheet

Table of Properties

Values quoted for the properties of Perspex® from Lucite® are the results of tests on representative samples and do not constitute specifications.

Property	Test Method	Units	GS CAST	GS IM CAST
General Properties				
Relative Density	ISO 1183	-	1.19	1.18
Rockwell Hardness	ISO 2039-2	M scale	102	98.5
Water Absorption	ISO 62	%	0.2	0.4
Flammability	BS 476 Pt 7	Class	3	3
	DIN 4102	-	B2	B2
	NFP 92-507	-	M4	-
	UL94	-	HB	HB
	ISO 11925-2	-	E	-
Mechanical Properties				
Tensile strength (5 mm/min)	ISO 527	MPa	75	62
Elongation at Break (5 mm/min)	ISO 527	%	4	-
Flexural Strength (2 mm/min)	ISO 178	MPa	116	105
Flexural Modulus (2 mm/min)	ISO 178	MPa	3210	2960
Impact Strength - Charpy (unnotched)	ISO 179	kJ.m ⁻²	12	21.7
	ISO 179	kJ.m ⁻²	-	1.2
Izod Impact Strength	ISO 180/1A	kJ.m ⁻²	-	-

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Property	Test Method	Units	GS CAST	GS IM CAST
Thermal Properties				
Vicat Softening Point	ISO 306 A	°C	> 110	> 110
Coefficient of Thermal Expansion - Linear	ASTM D696	$\times 10^{-5} \text{ K}^{-1}$	7.7	-
Optical Properties				
Light Transmission	ASTM D1003	% (0 mm)	> 92	> 92
Refractive Index	ISO 489 A		1.49	-
Electrical Properties				
Surface Resistivity	IEC 93	$\Omega \cdot \text{m}^{-2}$	$> 10^{14}$	-
Electrical Strength	IEC 243	$\text{kV} \cdot \text{mm}^{-1}$	15	-

The information is given in good faith and is based on our general experience, but because of the many particular factors which are outside our knowledge and control that affect the use of products, no warranty is given or is to be implied. Freedom from patent rights must not be assumed.

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Acrylic Sheet

10 YEAR GUARANTEE Standard (Signs) Colours

Lucite International guarantees that Perspex® acrylic sheet for exterior signs will comply in service with the performance specifications set out by Lucite International in the Appendix hereto for a period of ten years subject to the following conditions:

1. The guarantee period of ten years runs from the date of delivery of the sheet to the customer.
2. The guarantee covers the quality of the sheet as delivered and in particular:
 - 2.1 The sheet must be appropriately stored and transported prior to fabrication and installation.
 - 2.2 High standards of workmanship shall be used in fabrication and installation and Lucite International will not be liable for any failure attributable to poor standards of such workmanship.
 - 2.3 The guarantee does not cover any failure attributable to causes not usually associated with the normal use of Perspex® acrylic sheet and in particular does not apply to harm caused by chemical agents, cleaning fluids, unsuitable sealants or decorative materials.
3. Lucite International must be given immediate notice of any complaint. Sufficient evidence of the complaint must be given to Lucite International and those authorised by it must be allowed adequate facilities to substantiate any complaint.
4. If any Perspex® shall be shown to Lucite International's satisfaction to have failed to comply with the said performance specifications within the stipulated time limit Lucite International shall replace the failed sheet with an equivalent amount of Perspex® or other suitable alternative sheet to be delivered free of charge by Lucite International to a delivery point to be nominated by the customer, but Lucite International shall under no circumstances be responsible for any other damage or loss howsoever arising whether directly or indirectly.
5. Lucite International gives no guarantee or warranty express or implied in relation to Perspex® acrylic sheet apart from the guarantee given herein.

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6. This guarantee and all the terms thereof shall apply to all deliveries of Perspex® supplied by Lucite International until the guarantee is revoked by either of the parties. Revocation may be effected by either party serving on the other notice in writing to that effect at any time.

Revocation shall not affect deliveries of sheet made prior to the date of revocation which shall continue to be fully covered by the terms of this guarantee.

7. If the customer shall bring any claim under this guarantee it shall produce documentary evidence to Lucite International's satisfaction that the sheet in question is Perspex® made by Lucite International
8. This guarantee document relates to Perspex® signs exposed in Europe.

APPENDIX

OUTDOOR AGEING BEHAVIOUR OF PERSPEX® CAST ACRYLIC SHEET FOR SIGN APPLICATIONS

1. **Elastic Modulus**
The rigidity of Perspex® will remain substantially unchanged in service. This means that the elastic modulus of a sample cut from a section of Perspex® will not be less than 2500 MPa as delivered and for ten years after delivery (test method: ISO 178 measured on specimens removed from the exposed Perspex® installation).
2. **Tensile Strength**
Perspex® will suffer no unacceptable change in brittleness. This means that the tensile strength as delivered and for ten years after delivery of a sample cut from a section of Perspex® will not be less than 50 MPa. (test method: ISO R 527 measured on specimens, removed from the exposed Perspex®).
3. **Colourfastness**
During a ten year outdoor exposure period all coloured surfaces can be expected to exhibit at least some degree of change. Lucite International guarantees that any changes in colour of the Perspex® sheet will be so small as to pass undetected by the casual observer at street level.

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