

Typical Physical Properties

PERSPEX® Cast Acrylic

Property	Test Method	Conditions	Units	Value
Physical				
Relative Density	ISO 1183		g/cm ³	1.19
Water Absorption	ISO 62		%	0.2
Mechanical				
Tensile Strength at yield	ISO 527	5mm/min	MPa	75
Tensile Strength at break				
Elongation at yield				
Elongation at break	ISO 527	5mm/min	%	4
Tensile Modulus of Elasticity				
Flexural Modulus	ISO 178	2mm/min	MPa	3210
Flexural Strength at yield	ISO 178	2mm/min	MPa	116
Izod Impact Strength	ISO 180/1A	notched	kJm-2	N/A
Charpy Impact Strength	ISO 179	unnotched	kJm-2	12
Impact Falling Weight				
Rockwell Hardness	ISO 2039-2		M Scale	102
Thermal				
Service Temperature				
Heat Distortion Temperature				
Vicat Softening Temperature	ISO 306		°C	>110
Coefficient of Thermal Expansion	ASTM D-696		mm/m°C	0.077
Thermal Conductivity				
Specific Heat Capacity				
Optical				
Light Transmission	ASTM D-1003	3mm sheet	%	>92
Refractive Index	ISO 489/A			1.49
Yellowness Index				
Haze				
Electrical				
Dielectric Strength	IEC 243		kV/mm-1	15
Surface Resistivity	IEC 93		Ω m-2	>1014

Other physical properties and values available on request.

Flammability:

Standard	Classification
BS 476 Part 7	Class 3
UL 94	HB
NFP 92-307	M4 (without drips)

PERSPEX® is a combustible material and if ignited will continue to burn. However, unlike many other plastic materials, burning PERSPEX® produces very little smoke, an important fire safety benefit.