Typical Physical Properties

PERSPEX Distribution Ltd

Extruded Acrylic

Property	Test Method	Conditions	Units	Value		
Physical				Extruded	IM50	IM60
Relative Density	ISO 1183		g/cm³	1.2	1.17	1.16
Water Absorption	ISO 62		%	0.2	0.3	0.3
Mechanical						
Tensile Strength at yield	ISO 527	5mm/min	MPa	70	68	50
Tensile Strength at break						
Elongation at yield						
Elongation at break	ISO 527	5mm/min	%	4	18	25
Tensile Modulus of Elasticity						
Flexural Modulus	ISO 178	2mm/min	MPa	3030	2500	2000
Flexural Strength at yield	ISO 178	2mm/min	MPa	107	90	70
Izod Impact Strength	ISO 180/1A	notched	kJm-2	N/A	5	7
Charpy Impact Strength	ISO 179	unnotched	kJm-2	10	50	65
	ISO 179	notched	kJm-2	N/A	5	7
Impact Falling Weight						
Rockwell Hardness	ISO 2039-2		M Scale	101	65	45
Thermal						
Service Temperature						
Heat Distortion Temperature						
Vicat Softening Temperature	ISO 306		˚C	>105	>105	>105
Coefficient of Thermal Expansion	ASTM D-696		mm/m°C	0.078	N/A	N/A
Thermal Conductivity						
Specific Heat Capacity						
Optical						
Light Transmission	ASTM D-1003	3mm sheet	%	>92	90	89
Refractive Index	ISO 489/A			1.49	N/A	N/A
Yellowness Index						
Haze						
Electrical						
Dielectric Strength	IEC 243		kV/mm-1	N/A	N/A	N/A
Surface Resistivity	IEC 93		Ω m-2	>10 14		

Other physical properties and values available on request.

Flammability:

Standard	Classification
BS 476 Part 7	Class 4
UL 94	HB
NFP 92-307	M4 (without drips)

Acrylic is a combustible material and if ignited will continue to burn. Different to cast, extruded acrylic will eventually produce molten droplets which will continue to burn.