



# QUINN™ CAST

Product Information





Whether you need ultimate clarity for displays or vibrant deep colours for a sign programme, there is really only one choice – QUINN CAST. This versatile material is not only suitable for use in corporate signage and store fittings though; furniture makers and shopfitters love the way that QUINN CAST can be fabricated easily into stylish and attractive articles. Available in blocks up to 100 mm thick as well as traditional sheet, QUINN CAST is suitable for machining and installation into such diverse areas as deep sea vehicles and aquaria, where the tremendous pressures involved demand the highest quality of production. You can choose from a wide range of standard colours or we can colour match to your requirements, giving you flexibility of choice. QUINN CAST – a traditional material with a modern appearance!

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## PRODUCT IDENTIFICATION

QUINN CAST is the brand name for cast polymethyl methacrylate sheets from Quinn Plastics.

The composition of the final product is 90-95% PMMA + additives (stabilisers, plasticizers, dyes and pigments, release agents).

QUINN CAST is suitable for use in signage, displays, construction, furniture, lighting & publicity.

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## CHARACTERISTICS

QUINN CAST has an optical transparency of 93% light transmission for transparent sheets. It is significantly lighter and much more impact resistant than glass of equivalent thickness.

QUINN CAST is resistant to UV rays, shows good thermal stability and low water absorption.

QUINN CAST sheets are easy to handle and most fabricating and moulding techniques are applicable to it, allowing attractive designs.

For more information, please refer to our User Guide.

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## APPLICATIONS

### Construction:

- Skylights
- Barrel vaults
- Partitions
- Doors

### Industry:

- Signs
- Displays
- Furniture
- Sanitary fittings
- Gift articles
- Shopfittings
- Solariums
- Boat windows
- Projection screens

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## PRODUCT RANGE

- A palette of colours is available in opaque, opal, transparent and translucent
- Standard range of thickness is from 2 to 30 mm
- Blocks are available from 35 to 100 mm, subject to special conditions
- Special products: QUINN CAST design/QUINN CAST lumina/QUINN CAST vision/QUINN CAST UVT
- Special thicknesses, colours and patterns can be produced to special order, subject to special conditions.

Please see our product selector for a complete overview.

## TECHNICAL INFORMATION

### ■ GENERAL

Property	Method	Units	QUINN CAST
Density	ISO 1183	g/cm <sup>3</sup>	1.19
Rockwell Hardness	ISO 2039-2	M-scale	105

### ■ OPTICAL

Property	Method	Units	QUINN CAST
Light Transmission	ISO 13468-1	%	93
Refractive Index	ISO 489	n <sub>D</sub> <sup>D</sup> <sub>20</sub>	1.492

### ■ MECHANICAL

Property	Method	Units	QUINN CAST
Flexural Modulus	ISO 178	MPa	3000
Flexural Strength	ISO 178	MPa	125
Tensile Modulus	ISO 527	MPa	3300
Tensile Strength	ISO 527	MPa	75
Elongation	ISO 527	%	6

### ■ THERMAL

Property	Method	Units	QUINN CAST
Vicat Temp. (VST/A 50)	ISO 306	°C	115
Heat Deflection Temp. (A)	ISO 75	°C	105
Specific Heat Capacity	ISO 3146-C-60°C	J/gK	2.16
Coefficient of linear thermal expansion	ISO 11359-2	K <sup>-1</sup> x10 <sup>-5</sup>	7
Thermal conductivity	DIN 52612	W/mK	0.19
Degradation temperature		°C	> 280
Max. service temp. continuous use		°C	80
Max. service temp. short term use		°C	90
Sheet forming temp. range		°C	160-190

### ■ IMPACT STRENGTHS

Property	Method	Units	QUINN CAST
Izod (notched)	ISO 180	kJ/m <sup>2</sup>	-
Charpy (notched)	ISO 179	kJ/m <sup>2</sup>	2
Charpy (unnotched)	ISO 179	kJ/m <sup>2</sup>	15

### ■ ELECTRICAL

Property	Method	Units	QUINN CAST
Dielectric constant 50 HZ	DIN 53483		3.6
Volume Resistivity	DIN 53482	Ω.cm	10 <sup>15</sup>
Surface Resistivity	DIN 53482	Ω	10 <sup>14</sup>
Dielectric strength	DIN 53481	kV/mm	30
Dissipation Factor (50 HZ)	DIN 53483		0.06





## YOUR POINT OF CONTACT:

### FOR MORE INFORMATION:

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Quinn Plastics offers a wide range of plastic sheets that give the widest choice to industry as far as gauge, size, pattern, colour, coating and opacity are concerned.



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