



# QUINN<sup>™</sup> *plastics*

PRODUCT INFORMATION

QUINN<sup>™</sup> XT

# QUINN XT

Often it's the things you don't see that make the difference ... like clear QUINN XT sheet ! Although it's the most widely used sheet product you hardly notice it, because of its sparkling clarity and ability to be formed into shapes that just blend into a store layout.

QUINN XT is great for store displays, magazine shelving units or lighting controllers in the retail environment, but the best thing is that this material does its job without distracting from the products that are being displayed. When used in the sign industry, QUINN XT provides long lasting UV resistant signs that just get on with the job of promoting your products, so you don't have to worry about it.

The message is transparently clear - choose QUINN XT, your products will never look better !

## PRODUCT IDENTIFICATION

QUINN XT is the brand name for extruded Polymethyl methacrylate (PMMA) sheets manufactured by Quinn Plastics. The QUINN XT programme offers solutions to both indoor and outdoor applications.

QUINN XT is available in clear and opal white standard products and a wide range of colours and designs.

QUINN XT sheets are produced and tested according to DIN EN ISO 7823-2.

## CHARACTERISTICS

QUINN XT sheets have good optical properties and a brilliant surface.

QUINN XT sheets offer excellent transparency, good mechanical properties, are UV resistant, have very good weathering and ageing resistance and remain colour constant for years. High impact grades, QUINN XT610, XT620, XT630, have outstanding mechanical properties and excellent impact strength.

Both QUINN XT sheets and all high impact grades can be used in contact with foodstuffs, as they meet all current European food control legislation.

QUINN XT sheets and the high impact grades do not contain any toxic materials or heavy metals which may cause environmental damage or health risks. It is insoluble in water and not subject to hazardous materials identification.

QUINN XT sheets and the high impact grades are easy to recycle.



## APPLICATIONS

- Construction components: light domes, partition walls, door glazing, roofing, skylights for caravans
- Lighting: lighting control lenses, domestic light fittings.
- Engineering components: machine housings, machine safety covers.
- Advertising and signage: moulded letters, store displays, shop fittings, illuminated graphics panels.
- Other applications: containers, lettering templates, solariums (special grade, UV-transmitting), sound barrier walls.

## PRODUCT RANGE

- QUINN XT is available with anti-reflex, opal and opaque features.
- Colours: Clear, White, Glossy Black, Brown, Silicate Green. QUINN XT soft tone is also available in Blue.
- Standard range of thickness is from 1,5 to 25 mm.
- Standard sheet dimensions are 3050 x 2050 mm, sheets of 2050 x 1250 mm are also available, subject to special conditions.
- Special products: QUINN XT soft tone / QUINN XT high impact.
- Special thicknesses, colours and patterns can be produced to special order, subject to special conditions.

Please contact your local customer service centre for a complete product overview. For details see back of brochure.

# Technical Information

## GENERAL

Property	Method	Units	QUINN XT	QUINN XT 630	QUINN XT 620	QUINN XT 610
Density	ISO 1183	g/cm <sup>3</sup>	1.19	1.17	1.16	1.15
Water Absorption 24h/23°C-50x50x4mm <sup>3</sup>	DIN EN ISO 62 Method 1	%	0.2	0.25	0.3	0.3
Ball indentation hardness	ISO 2039-1	MPa	235	155	135	100
Forming temperature air pressure		°C	140-160	130-150	130-150	130-150
Forming temperature vaccum		°C	160-190	140-170	140 -170	140-170
Moulding shrinkage		%	0.5-0.8	0.6-0.9	0.6-0.9	0.6-0.9

## MECHANICAL

Property	Method	Units	QUINN XT	QUINN XT 630	QUINN XT 620	QUINN XT 610
Tensile Strength	ISO 527-2	MPa	70	55	50	40
Elongation at break	ISO 527-2	%	4	15	25	35
Tensile Modulus	ISO 527-2	MPa	3200	2400	2100	1800
Flexural Strength	ISO 178	MPa	115	90	85	65
Flexural Modulus	ISO 178	MPa	3300	2400	2100	1800
Impact strength Charpy unnotched	ISO 179-1	KJ/m <sup>2</sup>	17	25	35	60
Impact strength Charpy notched	ISO 179-1	KJ/m <sup>2</sup>	2	3	4	5

## THERMAL

Property	Method	Units	QUINN XT	QUINN XT 630	QUINN XT 620	QUINN XT 610
Vicat Temperature (B 50)*	ISO 306	°C	105	104	102	98
Specific heat capacity	ISO 11357-4	J/gK	1.47	1.5	1.5	1.5
Linear thermal expansion	DIN 53752	K <sup>-1</sup> ×10 <sup>-5</sup>	7	9	10	11
Thermal Conductivity	DIN 52612	W/mK	0.18	0.18	0.18	0.18
Service temperature continuous use		°C	70	65	65	65
Max.temperature short term use		°C	90	85	80	75
Degradation temperature		°C	>280	>280	>280	>280

## OPTICAL

Property	Method	Units	QUINN XT	QUINN XT 630	QUINN XT 620	QUINN XT 610
Light transmission (3mm)	DIN 5036-3/ EN ISO 13468-2	%	92	91	91	90
Refractive index	ISO 489	n <sup>D</sup> <sub>20</sub>	1.492	1.492	1.492	1.492

## ELECTRICAL

Property	Method	Units	QUINN XT	QUINN XT 630	QUINN XT 620	QUINN XT 610
Surface Resistivity	IEC 60093	Ω	3×10 <sup>15</sup> -	-	-	-
Volume Resistivity	IEC 60093	Ω x m	1×10 <sup>13</sup> -5×10 <sup>13</sup>	-	-	-
Electrical strength	IEC 60243-1	KV/mm	10	-	-	-
Dielectric strength	IEC 60243-1	kV/mm	30	30	30	30
Dielectrical dissipation factor 50 Hz	DIN 53483-2		0.06	-	-	-
Dielectrical dissipation factor 1 KHz	DIN 53483-2		0.04	-	-	-
Dielectrical dissipation factor 1 MHz	DIN 53483-2		0.02	0.03	0.03	0.03
Relative permittivity 50 Hz	DIN 53483-2		2.7	-	-	-
Relative permittivity 1 KHz	DIN 53483-2		3.1	-	-	-
Relative permittivity 1 MHz	DIN 53483-2		2.7	2.9	2.9	2.9

\*Pre-treatment 16h at 80°C. Technical data of our products our typical ones; the actual measured values are subject to production variations.

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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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