

# Polycarbonate - Long-life Grade

## Standard Sheet

Stock	
Size (mm)	Size (mm)
2050 x 1250 x 2	3050 x 2050 x 3
2050 x 1250 x 3	3050 x 2050 x 4
2050 x 1250 x 4	3050 x 2050 x 5
2050 x 1250 x 6	3050 x 2050 x 6
2440 x 1220 x 3	3050 x 2050 x 8
2440 x 1220 x 4	3050 x 2050 x 10
2440 x 1220 x 6	3050 x 2050 x 12
3050 x 2050 x 2	

## Properties

Fire Performance						
Country	Thickness (mm)	Test Method	Classification	Certificate No		
UK	3	BS2782: 1970: Method 50BA	Class 1Y	WARRES No 56933		
UK	3	BS476: Part 7: 1987	Class 1Y	WARRES No 66300		
France	3	892/2002	Class M2	5120606-DMAT/1		
Germany	3	P-MPA-E-00-612	Class B1	16-22633/1		
UK	3 (embossed)	BS476: Part 7: 1987	Class 1Y	WARRES No 70651		

## Light Transmission

Colour Code	1mm	2mm	3mm	4mm	5mm	6mm	8mm	10mm	12mm
Clear S	90	89	88	87	86	86	86	84	82
Clear S (Embossed)	-	-	84	83	82	81	77	-	-
Bronze CE	-	-	54	53	54	54	53	51	-
Green CF	-	-	41	38	-	41	-	-	-
Blue LM	-	-	-	-	-	14	-	-	-
Opal FH	-	-	37	32	31	26	-	-	-
Grey IM	-	-	-	33	-	35	-	-	-

## Technical Properties

Property	Test Method	Unit	Value
Physical Properties			
Density	DIN 53479	g/cm <sup>2</sup>	1.2
Light Transmission (3mm clear)	DIN 5036	°C	88
Refractive Index	DIN 53491		1.585
Mechanical Properties			
Tensile Strength at Yield	DIN 53455	N/mm <sup>2</sup>	>60
Tensile Strength at Break	DIN 53455	N/mm <sup>2</sup>	>70
Modulus of Elasticity	DIN 53457	N/mm <sup>2</sup>	2300
Impact Strength at 23 °C (notched charpy)	DIN 53453	Kj/m <sup>2</sup>	>30
Thermal Properties			
Linear Expansion Co-efficient		l/k	68 x 10 <sup>-6</sup>
Thermal Conductivity	DIN 52612	W/mK	0.21
Heat Deflection Temperature Load 1.81 N/mm <sup>2</sup>	DIN 53461	°C	135
Maximum Continuous Service Temperature		°C	100

## Thermal Transmittance - U Value

Thickness (mm)	Long Life Sheet (W/m <sup>2K</sup> )	Glass (W/m <sup>2K</sup> )
2mm	5.56	-
3mm	5.41	5.87
4mm	5.27	5.82
5mm	5.13	5.80
6mm	5.00	5.77
8mm	4.76	5.71
10mm	4.55	-
12mm	4.35	-

#### Weight Comparison

Thickness (mm)	Flat Sheet (Kg/m <sup>2</sup> )	Glass (Kg/m <sup>2</sup> )
2mm	2.40	5.00
3mm	3.60	7.50
4mm	4.80	10.00
5mm	6.00	12.50
6mm	7.20	15.00
8mm	9.60	20.00
10mm	12.00	25.00
12mm	14.40	30.00

## Disclaimer

This data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

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