

# Polycarbonate - Abrasion Resistant Grade

## Standard Sheet

Stock	
Size (mm)	Size (mm)
3000 x 2000 x 3	3000 x 2000 x 8
3000 x 2000 x 4	3000 x 2000 x 10
3000 x 2000 x 5	3000 x 2000 x 12
3000 x 2000 x 6	

## Properties

Fire Performance					
Country	Thickness (mm)	Test Method	Classification	Certificate No	
UK	3	BS2782: 1970: Method 50BA		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 10-6
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

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