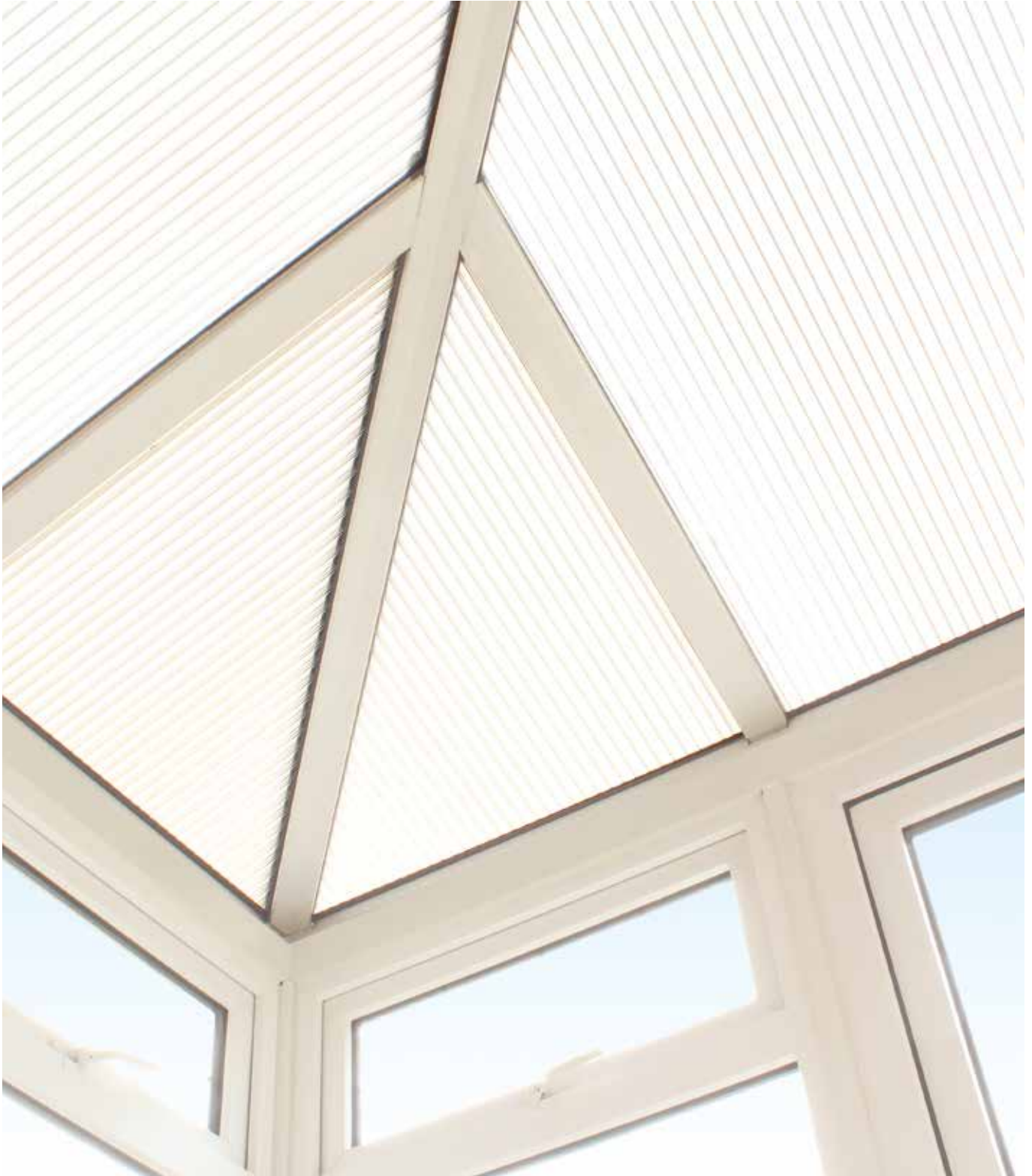




PRODUCT GUIDE

Virtually unbreakable extruded multiwall polycarbonate sheets.





IMPEX[®] MULTIWALL

IMPEX[®] MULTIWALL are virtually unbreakable extruded multiwall polycarbonate sheets. The sheets are light-weight, strong, weather resistant, more impact resistant and offer good cold and heat insulating properties.

IMPEX[®] MULTIWALL offers solutions for both indoor and outdoor applications. The standard programme includes the colours clear, opal and bronze in different wall design variants.

IMPEX® MULTIWALL

EXTRUDED MULTIWALL POLYCARBONATE SHEETS WITH HIGH IMPACT RESISTANCE

CHARACTERISTICS

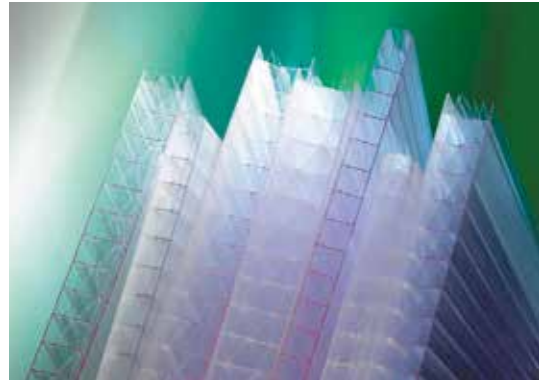
- High impact resistance
- High heat and sound insulation
- Long life span
- Excellent light transmission up to 86% (6/2w)
- Large dimensions
- Excellent resistance to chemicals
- Very good transparency
- UV protection: co-extruded single-sided or double-sided
- 10 year warranty against yellowing
- Excellent fire safety according to EN 13501 (Euroclass)
- Temperature resistant from -40°C up to +130°C
- High resistance to mechanical loading
- Lightweight
- Easy to install using common tools

APPLICATIONS

- Roofing and glazing for carports, terraces, conservatories and pergolas
- Light domes
- Vaults
- Suspended ceilings
- Greenhouses
- Cladding
- Shelters
- Partitions
- Swimming pool covers
- Protective covers for fragile items

PROCESSING

- Laminating
- Sawing
- Drilling
- Bonding



COLOUR	FEATURE	LT (16/3w)	SHEET WIDTH (mm)	SHEET LENGTH (mm)	4/2w	6/2w	8/2w	10/2w	10/4w	16/3w	16 Diamond	20 Diamond	25 Diamond		
Clear 1090	UVP (single-sided)	73%	980	6000							30				
				7000								30			
			1200	6000									30		
				7000									30		
			2100	6000	70	70	50	50*	50	30	30	30	30	20	20
				7000				50	50	30	30	30	30	20	20
Opal 3B 2090	UVP (single-sided)	45%	980	6000							30				
				7000								30			
			2100	6000				50*				30			
				7000				50	50			30			
Bronze 1990	UVP (single-sided)	25%	2100	6000				50							
				7000											

IMPEX® MULTIWALL special conditions: Other thicknesses, colours and patterns can be produced to order, but are subject to special conditions (minimum order quantities, production lead times and price surcharge).

UVP = UV-protection (* = This version is also available with double-sided UV covering.)

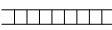
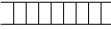

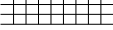

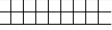


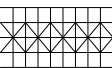
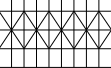
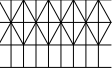
LT = Light transmission (Figures apply to 16/3w only.)

Products having a number of sheets per pallet in the table are available on stock.

Detailed information on the products deviating from the standard can be found in the current valid version of the delivery programme. Please contact your customer service representative.



TECHNICAL INFORMATION

		4/2w	6/2w	8/2w	8/4w	10/2w	10/4w
Design of the walls							
Thickness	mm	4	6	8	8	10	10
	tolerance	+/- 0.5 mm					
Light transmission	clear sheet	86%	86%	81%	70%	74%	67%
U value	watts/(m ² .K)	3.9	3.5	3.2	2.8	3.0	2.5
Weight	g/m ²	900	1300	1500	1500	1700	1700
	tolerance	+/- 45	+/- 65	+/- 75	+/- 75	+/- 85	+/- 85
Standard widths	mm	2100					
	tolerance	-2/+6 mm					
Standard lengths*	mm	6000 and 7000 mm					
	tolerance	-0/+0.40% (24 – 28 mm)					
		16/3w	16/5w	16 Diamond	20 Diamond	25 Diamond	
Design of the walls							
Thickness	mm	16	16	16	20	25	
	tolerance	+/- 0.5 mm					
Light transmission	clear sheet	73%	62%	60%	55%	50%	
U value	watts/(m ² .K)	2.3	2.0	1.9	1.7	1.5	
Weight	g/m ²	2700	2500	2500	3000	3300	
	tolerance	+/- 135	+/- 125	+/- 125	+/- 150	+/- 165	
Standard widths	mm	980 / 1200 / 2100	980 / 2100	980 / 1200 / 2100	2100	980 / 2100	
	tolerance	-2/+6 mm					
Standard lengths*	mm	6000 and 7000 mm					
	tolerance	-0/+0.40% (24 – 28 mm)					

* = Standard lengths of IMPEX® MULTIWALL sheets are 6000 mm and 7000 mm.

Detailed information on the products deviating from the standard can be found in the current valid version of the delivery programme. Please contact your customer service representative.

FIRE PERFORMANCE

COLOUR	WEIGHT (g/m ²)	THICKNESS (mm)	RESULT	STANDARD	TEST INSTITUTE
Clear & Opal	900 – 1700	4/2w – 10/2w	B-s1,d0	EN13501-1:2007	MFPA Leipzig GmbH DIN EN 13823 & DIN EN ISO 11925-2
Clear & Opal	1700	10/4w	B-s1,d0	EN13501-1:2007	MFPA Leipzig GmbH DIN EN 13823 & DIN EN ISO 11925-2
Clear & Opal	2700	16/3w	B-s1,d0	EN13501-1:2002	LNE NF EN ISO 11925-2 (2002) & NF EN 13823 (2002)
Clear	2500	16/5w	B-s1,d0	EN13501-1:2007	LNE NF EN ISO 11925-2 & NF EN 13823
Clear	2500	16 Diamond	B-s1,d0	EN13501-1:2010	MFPA Leipzig GmbH DIN EN 13823 & DIN EN ISO 11925-2
Opal 3B	2500	16 Diamond	C-s1-d0	EN13501-1:2010	MFPA Leipzig GmbH DIN EN 13823 & DIN EN ISO 11925-2
Opal 4B	2500	16 Diamond	B-s1,d0	EN13501-1:2007	LNE NF EN ISO 11925-2 (2010) & NF EN 13823

Other country/region specific fire certifications have also been achieved. These are available upon request.

CERTIFICATIONS*



KPF Erkelenz tested

*Sheets are manufactured according to EN 16153:2013

TECHNICAL APPROVALS

Avis Technique
Aprobata Techniczna
General building authority approval 4 – 10 mm

COUNTRY

France
Poland
Germany

GENERAL			
Property	Method	Unit	IMPEX® MULTIWALL
Density	ISO 1183	g/cm ³	1.2
MECHANICAL			
Property	Method	Unit	IMPEX® MULTIWALL
Flexural modulus	ISO 489	MPa	2000
Flexural strength	ISO 178	MPa	>95
Tensile modulus	ISO 527	MPa	2200
Tensile strength	ISO 527	MPa	60
Elongation at break	ISO 527	%	80
OPTICAL			
Property	Method	Unit	IMPEX® MULTIWALL
Refractive index	ISO 489	n ^D ₂₀	1.585
THERMAL			
Property	Method	Unit	IMPEX® MULTIWALL
Vicat-Temperature (B 50)	DIN EN ISO 306	°C	145
Heat deflection temperature (A/B)	DIN EN ISO R75	°C	135
Specific heat capacity		J/gK	1.17
Coefficient of linear thermal expansion	DIN 53328	K ⁻¹ x10 ⁻⁴	0.65
Thermal conductivity	DIN 52612 or ISO 8302	W/mK	0.20
Degradation temperature		°C	>280
Max. service temperature continuous use		°C	115
Max. service temperature short term use		°C	130
Sheet forming temperature range		°C	180 – 210
ELECTRICAL			
Property	Method	Unit	IMPEX® MULTIWALL
Dielectric constant (50 HZ)	DIN 53483		3.0
Volume resistivity	DIN 53482	Ω.cm	10 ¹⁵
Surface resistivity	DIN 53482	Ω	>10 ¹⁵
Dielectric strength	DIN 53481	kV/mm	>30
Dissipation factor (50 HZ)	DIN 53483		8x10/4w
IMPACT STRENGTHS			
Property	Method	Unit	IMPEX® MULTIWALL
Charpy (notched)	ISO 179	kJ/m ²	>10
Charpy (unnotched)	ISO 179	kJ/m ²	no break

Note: These technical data of our products are typical ones; the actually measured values are subject to production variations.

SURFACE LOADING 0.75 kN/m² WITH 4-SIDES FRAME COVERING

	SHEET WIDTH (mm)	980	1050	1200
IMPEX® MULTIWALL	THICKNESS (mm)	SHEET LENGTH (mm)		
6/2w	6	1300	1200	1000
8/2w	8	1600	1400	1200
8/4w	8	1500	1300	1100
10/2w	10	2000	1700	1400
10/4w	10	1800	1600	1300
16/3w	16	2600	2300	1900
16/5w	16	2500	2200	1800
16 Diamond	16	3300	2800	2100
25 Diamond	25	>6000	>6000	4500

Note: These technical data of our products are typical ones; the actually measured values are subject to production variations.



POLYCASA

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FOR PLASTICS
AND COMPOSITES

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