

Exolon® UV LF (Low Flammability)

Solid polycarbonate sheet



Your benefits:

- good fire rating: B-s2, d0 at 8 mm
- excellent weathering resistance
- extreme impact strength
- thermoformable

Exolon® UV LF sheets are made from clear-transparent polycarbonate sheets with UV protection on both sides. They are the perfect choice for a long service life owing to their good weathering resistance. These attributes are backed up by our 10-year guarantee on weathering resistance and a 10-year guarantee on retaining their mechanical properties.

Exolon® UV LF meets EN 13501-1 requirements B-s2, d0 at 8 mm thickness.

Applications:

Exolon® UV LF is ideal for outdoor applications:

- covered walkways and bus shelters
- barrel vaults and skylights (also thermoformed)

Available sizes:

Exolon® UV LF is available in 8 mm sheet thickness and in the following sizes; other sizes on request:

Colors:

clear 2099

Sizes (Standard):

3,050 x 2,050 mm

6,110 x 2,050 mm

	Test Conditions	Typical values ⁽¹⁾	Unit	Standard
PHYSICAL				
Density		1200	kg/m ³	ISO 1183-1
Water absorption saturation	water at 23 °C	0.30	%	ISO 62
Water absorption equilibrium	23 °C, 50% relative humidity	0.12	%	ISO 62
Refractive index	Procedure A	1.587	–	ISO 489
MECHANICAL				
Tensile modulus	1 mm/min	2350	MPa	ISO 527-1,-2
Yield stress	50 mm/min	160	MPa	ISO 527-1,-2
Yield strain	50 mm/min	6	%	ISO 527-1,-2
Strain at break	50 mm/min	120	%	ISO 527-1,-2
Flexural modulus	2 mm/min	2350	MPa	ISO 178
Flexural strength	2 mm/min	90	MPa	ISO 178
Charpy impact strength	23 °C, unnotched	non-break	kJ/m ²	ISO 179-1eU
Charpy impact strength	23 °C, 3 mm, notched	80P	kJ/m ²	ISO 179-1eA
Izod impact strength	23 °C, 3.2 mm, notched	70P	kJ/m ²	ISO 180-A
THERMAL				
Vicat softening temperature	50 N, 50°C/h	148	°C	ISO 306
Thermal conductivity	23°C	0.20	W/(m.K)	ISO 8302
Coefficient of linear thermal expansion	23 to 55°C	0.65	10 ⁻⁴ /K	ISO 11359-1, -2
Temperature of deflection under load	1.80 Mpa	128	°C	ISO 75-1, -2
Temperature of deflection under load	0.45 Mpa	140	°C	ISO 75-1, -2
ELECTRICAL				
Electrical strength	1 mm	34	kV/mm	IEC 60243-1
Volume resistivity		1E14	Ohm.m	IEC 60093
Surface resistivity		1E16	Ohm	IEC 60093
Relative permittivity	100 Hz	3.1	–	IEC 60250
Relative permittivity	1 MHz	3.0	–	IEC 60250
Dissipation factor	100 Hz	5	10 ⁻⁴	IEC 60250
Dissipation factor	1 MHz	95	10 ⁻⁴	IEC 60250

⁽¹⁾ These values are measured on injection molded samples, and are not intended for specification purposes.

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Exolon Group S-Line, the standard product line, represents a range of certified quality products which offer the reliable solution for most applications.

Light Transmission: Test Method according to DIN 5036.
The stated values are typical values only.

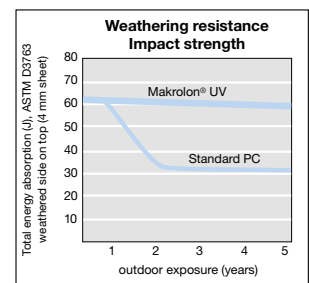
Light transmission in %	8
Exolon® UV LF clear 2099	84

Fire Rating:

Country	Standard	Rating	Thickness	Color
Europe	EN 13501-1	B-s2, d0	8 mm	clear 2099

Weathering Resistance: Exolon® UV sheets show excellent weathering resistance, which guarantees their impact strength even after many years. Since their introduction in 1989, the sheets have been examined in an intensive test program, including a real-time outdoor exposure test in a southern European climate (Bando). The sheets are provided with a 10-year warranty on unbreakability and on optical properties.

Permanent Service Temperature: The permanent service temperature without load is approx. 120 °C.



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