

# 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 <sup>(1)</sup>	Unit	Standard
<b>PHYSICAL</b>				
Density		1200	kg/m <sup>3</sup>	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
<b>MECHANICAL</b>				
Tensile modulus	1 mm/min	2350	MPa	ISO 527-1,-2
Yield stress	50 mm/min	60	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 <sup>2</sup>	ISO 179-1eU
Charpy impact strength	23 °C, 3 mm, notched	80P	kJ/m <sup>2</sup>	ISO 179-1eA
Izod impact strength	23 °C, 3.2 mm, notched	70P	kJ/m <sup>2</sup>	ISO 180-A
<b>THERMAL</b>				
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 <sup>-4</sup> /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
<b>ELECTRICAL</b>				
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 <sup>-4</sup>	IEC 60250
Dissipation factor	1 MHz	95	10 <sup>-4</sup>	IEC 60250

<sup>(1)</sup> 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.

<b>Light transmission in %</b>	<b>8</b>
Exolon® UV LF clear 2099	84

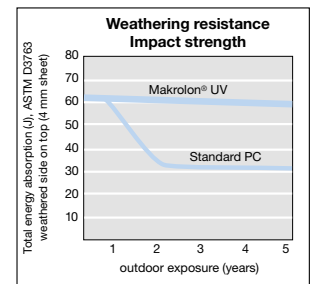
### Fire Rating (\*):

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

(\*): Fire certificates could be limited in time and scope, always check if the mentioned certificate is valid for the purchased Polycarbonate sheet type at the date of delivery. Polycarbonate sheets may change their fire behavior due to ageing and weathering. The indicated fire rating was tested on new / unweathered Product in accordance with the indicated fire classification standards.

**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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