



Product Data Sheet, October 2009

Makrolon® multi CS UV Corrugated multi wall polycarbonate sheet



Your benefits:

- heat insulation
- high rigidity
- low weight

Makrolon® multi CS UV 2/177-51 is a double-skin corrugated polycarbonate sheet. This sheet made from Bayer polycarbonate (PC) is impact-resistant, heat-insulating and weather-resistant.

UV protection:

The UV coating is applied by coextrusion and is homogenously fused with the sheet. We give a 10-year warranty on this highly effective protection against sunlight and weathering. It must be ensured when installing the sheet that the UV coating faces upwards/outwards (towards the sun). The smooth surface ensures minimal dirt pickup.

Applications

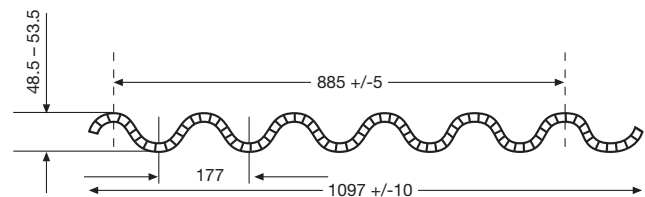
The **Makrolon® multi CS UV** sheet is suitable for glazing in:

- private buildings (pergolas, carports, etc.)
- roofing open spaces
- industrial glazing and public buildings, or as a decorative sheet for indoor uses

TECHNICAL DATA (TYPICAL VALUES)

| | | |
|---|--------------------------|-------------------------------|
| Area weight | 2.0 kg/m ² | |
| Sheet thickness | 6 mm | |
| Sheet width | 920 mm, 1,097 mm | |
| Delivery length | 1,500 to 12,000 mm | |
| Minimum admissible cold-curving radius | 10,000 mm | |
| Light transmittance τ_{D65} (UV-impermeable) | clear 1099: approx. 72 % | |
| U-value Ug | 3.7 W/m ² K | |
| Coefficient of linear thermal expansion α | 0.065 mm/m °C | |
| Possible expansion due to heat and moisture | approx. 3 mm/m | |
| Max. permanent service temperature without load | 120 °C | |
| Fire rating | | |
| • Italy | all colors | Class 1 (NF 16 - 101) |
| • Germany | clear | B1 (DIN 4102) |
| • France | clear/white | Class M2 (CSE/RF2/75A & 3/77) |

Makrolon® multi CS UV sinus 2/177-51



Product Liability Clause: This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided – especially that contained in our safety data and technical information sheets – and to test products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.



makrolon®
CS UV

Product Data Sheet, October 2009

Makrolon® multi CS UV

Corrugated multi wall polycarbonate sheet



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

Hints for installation

Makrolon® multi CS UV sheets are quick and easy to install. To obtain optimal results, please observe the following instructions.

Storage

The sheets should be stored indoors on a flat surface. If they are stored outdoors, please cover the **Makrolon® multi CS UV** sheets with white polyethylene (PE) film.

Installation

Use self drilling screws to fasten the sheet on the roof. Lengthways, the sheets should overlap by at least 120 mm, and widthways by half corrugation (see fig.). If the overlap is located exactly between the supporting purlins, it is advisable to install a further support below the overlap. To avoid overlap on the corners of four sheet, corner could be cut on request.

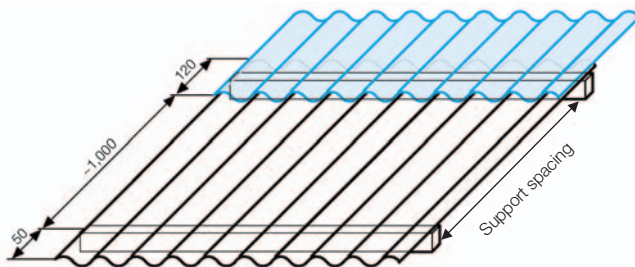
The fastening elements are to be tightened in such a way that they do not deform the corrugated profile of the sheet and that no water can penetrate at the fastening points. Please make sure that all materials (fastening elements, gaskets and supports) entering into contact with each other are compatible with polycarbonate, e.g. EPDM rubber or PE. Never use PVC or other incompatible materials.

Never walk directly on the sheet. Use a thick board or plank that spans at least two rafters.

Cleaning

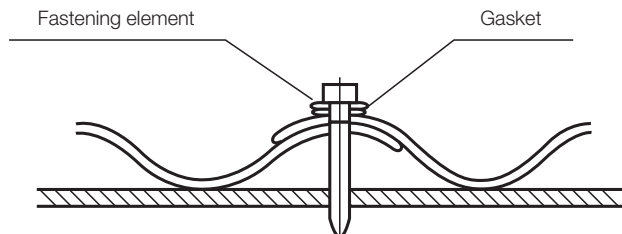
Makrolon® multi CS UV sheets can be cleaned using a neutral cleaning agent, a sponge or soft cloth, and lukewarm water. Never employ highly alkaline detergents or solvents, and never scrub the sheets with brushes, nor use razor blades or any other sharp implements on them.

Hints for roof installation

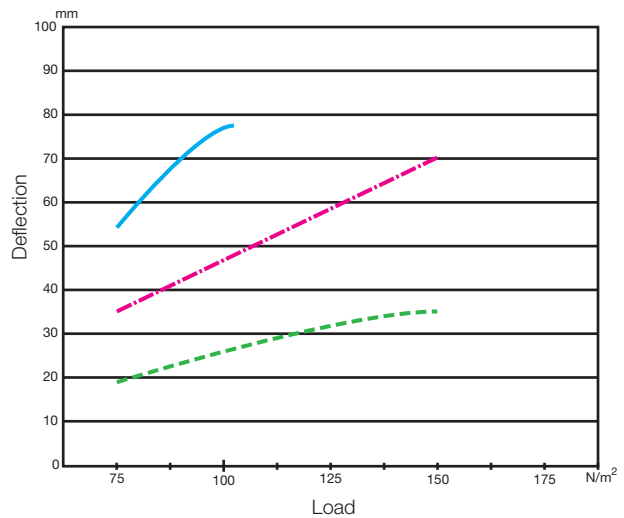


Dimensions in mm

Fastening on roofs



Sheet width 1,097 mm



--- Support spacing 1,150 mm
 - · - Support spacing 1,300 mm
 — Support spacing 1,500 mm
 Safety factor 1.3

Bayer Sheet Europe also produces solid sheets in polycarbonate (Makrolon® GP) and in polyester (Vivak® and Axpert®). For more information, take a look at www.bayersheeteurope.com.

Bayer Sheet Europe GmbH
 Otto-Hesse-Straße 19 / T9, 64293 Darmstadt, Germany
 Tel. +49 6151 13 03-0
 Fax +49 6151 13 03-500
www.bayersheeteurope.com
sales@bayersheeteurope.com

A  Bayer MaterialScience Company

 **makrolon®**
 CS UV