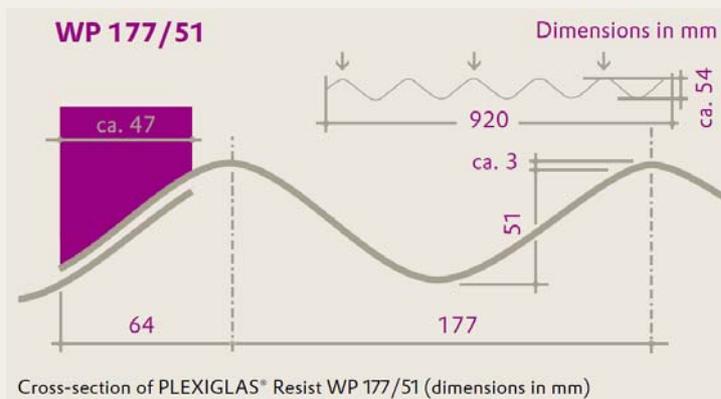


PLEXIGLAS® Resist

PLEXIGLAS® Resist WP 177/51



Product

PLEXIGLAS® Resist¹ WP 177/51 is a highly light-transmitting and durably weather-resistant corrugated sheet made of impact-modified acrylic (polymethylmethacrylate, PMMA).

Properties

Besides the general properties of PLEXIGLAS® like

- Excellent light transmission and brilliance
- Outstanding weather resistance
- 100% recycling ability
- Easy to fabricate
- High surface hardness

PLEXIGLAS® Resist WP 177/51 possesses the following properties:

- They are extraordinarily UV-resistant and come with a 30-year guarantee against yellowing
- They offer excellent protection against excessive amounts of harmful UV radiation
- They are safe and easy to handle
- They are hail-resistant, with a 10-year guarantee for withstanding hailstones with an energy of 1 joule
- They are available in different colors and with different surface textures.

¹ European Patent 149 182

Applications

Due to these properties PLEXIGLAS® Resist WP 177/51 are suitable for the following applications

- Patio roofs
- Carports
- Porches
- Verandas
- Facades
- Windbreaks
- Sight Screens
- Skylights for fiber cement roofs
- Infill panels for balconies, stairs, etc.
- Lampshades, decorative elements, store fixtures, exhibition booths

Processing

For PLEXIGLAS® Resist WP 177/51 the following processing guideline is available:

- Instructions for Installing PLEXIGLAS® Multi-Skin, Corrugated- and Solid Sheets (Ref-No. 311-8)

Product range

PLEXIGLAS® Resist WP 177/51 is available in the following grades and sizes:

- Length: 2,000 to 7,000 mm
- Width: 920mm
- Colors: Clear

For details please refer to the PLEXIGLAS® sales handbook.

Stability and Impact Strength

Owing to their special formulation, PLEXIGLAS® Resist WP 177/51 sheets are highly impact-resistant and are easy to machine using simple tools. They are also much thicker than many other corrugated sheets and therefore show high inherent rigidity and loadbearing capacity. This means that PLEXIGLAS® Resist corrugated sheets show much less deflection under snow load, making them safer and more attractive.

Surface Textures and Color

Due to their neutral color and surface textures (Smooth, Honeycomb), PLEXIGLAS® Resist WP 177/51 sheets lend themselves perfectly to different building styles. In addition to these benefits, the color impression and surface textures enable interesting design and lighting effects to be obtained.

Installation and Care Instructions

On roofs and façades, PLEXIGLAS® Resist WP 177/51 are fastened pointwise to an adequately sized supporting structure. The textured side of the sheet is installed facing downwards/inwards. Given correct installation, rain washes off any soiling, but we still recommend that the PLEXIGLAS® Resist corrugated sheets be cleaned once a year according to our care instructions, in order to conserve their full value.

Load-bearing capacity

Support spacing

According to the installation instructions for PLEXIGLAS® corrugated sheets with pointwise fastening, the PLEXIGLAS® Resist WP 177/51 corrugated sheets require cross-members at the spacings shown in the adjacent table.

Support spacing [m]

Load [N/m ²]	Support spacing [m]
200	2,40
400	2,00
600	1,65
800	1,35
1000	1,30
1200	1,20

Technical data (Typical values)

Available length	2,000 to 7,000 mm
Light transmittance τ_{D65}	
Clear 0A001 Smooth	Up to 92%
Clear 0A001 Honeycomb	Up to 92%
Coefficient of linear thermal expansion α	0,08 mm/m °C
Possible expansion due to heat and moisture	approx. 6 mm/m
Max. service temperature without load	70 °C
Area weight	approx. 3.8 kg/m ²

Fire behavior

- PLEXIGLAS® is rated as European Class E in accordance with DIN EN 13501.
- PLEXIGLAS® burns almost entirely without smoke in accordance with DIN 4102 and is easily extinguished.
- The smoke gases formed by PLEXIGLAS® are neither acutely toxic in accordance with DIN 53436 nor corrosive according to DIN VDE 0482-267.
- Roof surfaces glazed with PLEXIGLAS® open up by melting in the event of fire, allowing smoke and heat to escape.

Guarantee

You can find the guarantee statements on this and other products at www.plexiglas.net

® = registered trademark PLEXIGLAS is a registered trademark of Evonik Röhm GmbH, Darmstadt, Germany. Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment)

Evonik is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

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Ref. No. 233-1 July 2015