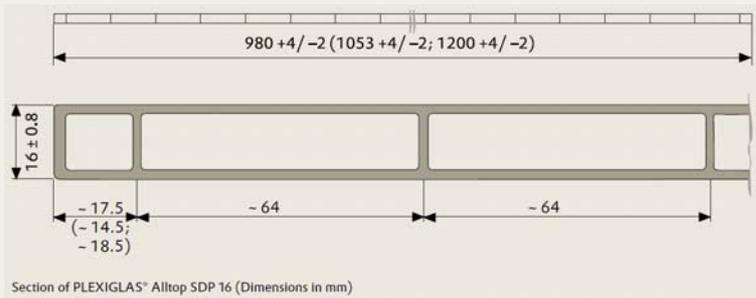


PLEXIGLAS® Alltop

PLEXIGLAS® Alltop SDP 16/980 (/1053,/1200)-64



Product

The PLEXIGLAS® Alltop SDP 16 double-skin sheet is a light-transmitting, heat-insulating and very weather-resistant sheet made from acrylic (poly-methylmethacrylate, PMMA). It was designed with a particularly wide web spacing of 64 mm for private or factory glazing and greenhouses which require a degree of transparency that is above the normal for double-skin sheets and which only need a minimum of supporting structure at the same time. As opposed to multi-skin sheets type NO DROP¹, which carry the proven water-dispersing coating on one side only, Alltop² sheets are coated on both sides and within the cavities.

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® Alltop SDP 16 possesses the following properties:

- Increased light transmission of about 91 %, compared with 75 to 86 % for conventional double glazing.
- Absence of fogging, i.e. the physically unavoidable condensation remains practically invisible, both within and on the sheets.
- No drop formation, i.e. no uncontrolled dripping inside the room. Moreover, the outer surface is more effectively cleaned by rain, so that the glazing as a whole appears particularly clean and clear-transparent.
- Increased energy saving, because more solar energy is transmitted. Therefore heating costs can be reduced.
- Further promotion of plant growth because of the extra amount of light and UV-radiation that passes through the sheets.
- They can significantly reduce cleaning cost

¹ Europ. Patent 149 182

² Europ. Patent 530 617

- They are extraordinarily UV-resistant and come with a 30-year guarantee against yellowing and for retaining a high level of light transmission
- They help to save energy and minimize CO₂ emissions

Applications

Due to these properties PLEXIGLAS® Alltop SDP 16 are suitable for the following applications

- Patio roofs
- Carports
- Porch roofs
- Balconies
- Greenhouses
- Conservatories
- Skylights
- Facades

Processing

For PLEXIGLAS® Alltop 16 the following processing guideline is available:

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

Product range

PLEXIGLAS® Alltop SDP 16 is available in the following grades and sizes:

- Length: 2000 to 7000 mm
- Width: 980 mm, 1053mm, 1200mm
- Colors: Clear

For details please refer to the PLEXIGLAS® sales handbook.

(All side) NO DROP coating

The water-dispersing No DROP coating applied to all surfaces of the sheet causes any surface water to flow off as a thin, continuous film. When the sheet is installed the NO DROP coating on the outside of the roof, supports natural cleaning by rainwater. On the inside of the roof, the coating helps to prevent dripping from condensation and the damage this may cause. The NO DROP coating

is covered with a protective layer applied during the manufacturing process.

This protective layer can be washed off with water and a sponge, or by hosing down the sheet. This activates the NO DROP coating

Load-bearing capacity

Support spacing

Thanks to their high rigidity, these sheets allow large spans, which reduce shadows inside the room and cuts construction costs.

Supported on all four sides, the PLEXIGLAS® Alltop SDP 16/980 double skin sheet requires no additional cross-members at a load of up to 750 N/m². The spacing stated in the table applies to greater loads. The load-bearing capacity is determined in line with ETAG 010 (Guideline for European Technical Approval for Self-supporting, Translucent Roof Kits), assuming a rebate depth of 20 mm for the multi-skin sheets in the glazing system. The support spacing should be reduced correspondingly for smaller rebate depths. If the skin of a cut-to-size sheet is to protrude more than 15 mm beyond the last web, **INFILL SECTION 16** has to be inserted into the cut edge.

Support spacing [m]

Load [N/m ²]	980 mm	1200 [mm]
750	No cross-members	5,10
1000	4,80	4,20
1250	3,80	3,50
1500	3,10	2,90
1750	2,60	2,50
2000	2,25	2,20
2250	2,00	2,00
2500	1,80	1,80
2750	1,70	1,70
3000	1,60	1,60

Technical data (Typical values)

Available length	2,000 to 7,000 mm
Light transmittance τ_{D65}	
Clear 29080 (UV-transmitting)	~ 91%
Total energy transmittance g	
Clear 29080	~ 82%
Heat transfer coefficient k (Test report 13-901399/P2/Fi, FMPA Stuttgart)	2,5 W/m ² K
Coefficient of linear thermal expansion α	0,07 mm/m °C
Possible expansion due to heat and moisture	ca. 5 mm/m
Max. service temperature without load	70 °C
Weighted sound reduction index	22 dB
Area weight	Approx. 5.0 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. 234-13 July 2015