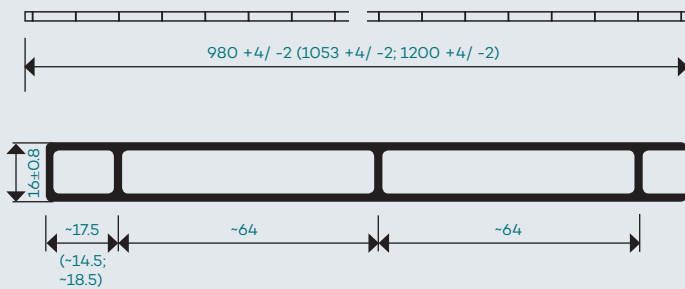




PLEXIGLAS® Double-skin sheet

PLEXIGLAS® Alltop SDP 16/64 Impact-modified



Section of PLEXIGLAS® Alltop SDP 16/64, impact-modified (dimensions in mm)



Product

The PLEXIGLAS® Alltop SDP 16/64 double-skin sheet is an impact-modified, light-transmitting, heat-insulating and very weather-resistant sheet made from acrylic (polymethyl-methacrylate, 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 16/64, impact-modified, possesses the following properties:

- Increased light transmission of about 87 %, 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 (PLEXIGLAS® Alltop SDP 16/64, impact-modified, ORS32).
- They can significantly reduce cleaning cost.
- 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.

¹ Europ. Patent 149 182 ² Europ. Patent 530 617



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Applications

Due to these properties PLEXIGLAS® Alltop SDP 16/64, impact modified, are suitable for the following applications:

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

Processing

For PLEXIGLAS® Alltop SDP 16/64, impact-modified, 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 16/64, impact-modified, is available in two grades:

- Clear ORS32 (UV-transmittant)
- Clear ORS17 (UV-absorbent)

Both grades are available in the following dimensions:

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

For details please refer to the PLEXIGLAS® sales range.

(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 and 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, PLEXIGLAS® Alltop SDP 16/64/980, impact-modified double skin sheet requires no additional support purlin 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		
Load [N/m²]	980 mm	1200 mm
750	no support purlin	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



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Technical data (Typical values)

Available length	2000 to 7000 mm
Light transmittance τ_{D65}	
Clear ORS32 (UV-transmittant)	~ 87 %
Clear ORS17 (UV-absorbent)	~ 87 %
UV-transmission	
Clear ORS32 (UV-transmittant)	~ 80 %
Clear ORS17 (UV-absorbent)	< 1 %
Total energy transmittance g	
Clear ORS32	~ 80 %
Clear ORS17	~ 80 %
Heat transfer coefficient k (Test report 13-901399/P2/Fi, FMPA Stuttgart)	2.5 W/m ² K
Coefficient of linear thermal expansion α	0.09 mm/m ² K
Possible expansion due to heat and moisture	approx. 6 mm/m
Max. service temperature without load	70 °C
Weighted sound reduction index	approx. 24 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.de.

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® = registered trademark

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