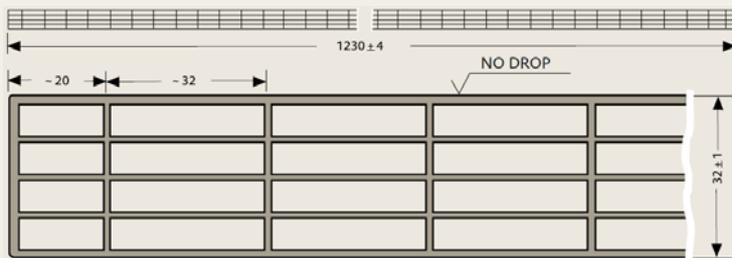


PLEXIGLAS® Resist

PLEXIGLAS® Resist S5P 32/1230-32



Cross-section of PLEXIGLAS® Resist S5P 32 (dimensions in mm)



Product

PLEXIGLAS® Resist¹ S5P 32 is a highly heat-insulating, highly light-transmitting and durably weather-resistant quintuple-skin sheet made of impact-modified acrylic (polymethyl methacrylate, 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 S5P 32 possesses the following properties:

- They offer extremely high resistance to UV light and come with a 30-year non-yellowing guarantee².
- They offer excellent protection against an excess of harmful UV radiation.
- They are very safe during handling.
- They help to save energy and minimize CO2 emissions.
- They are hail-resistant (to hailstones with an impact energy up to 1 joule).
- This comes with a 10-year guarantee.
- They are available in different colors.

¹ European Patent 733 754

² Applies to clear-transparent PLEXIGLAS® multi-skin sheets as per guarantee statement

Applications

Due to these properties PLEXIGLAS® Resist S5P 32 is suitable for the following applications

- Carports
- Conservatories
- Façades
- Greenhouses
- Patio roofs
- Porches
- Skylights
- Verandas
- etc.

Processing

For PLEXIGLAS® Resist S5P 32 the following processing guideline is available:

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

Product range

PLEXIGLAS® Resist S5P 32 is available in the following grades and sizes:

- Length: 2000 bis 7000 mm
- Width: 1230 mm
- Colors: Clear, White, Grey

For details please refer to the PLEXIGLAS® sales handbook.

Heat insulation

With their further improved U-value, these sheets meet all requirements of the German Energy Saving Ordinance (EnEV). This makes them suitable as highly heat-insulating glazing materials for private construction as well as for factory units and sports halls.

NO DROP coating

The water-dispersing NO DROP³ coating applied to one side of the sheet causes any surface water to flow off as a thin, continuous film.

When the sheet is installed with the NO DROP coating on the outside of the roof, it supports

natural cleaning by rainwater. Installed 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® Resist S5P 32/1230 quintuple skin sheet requires no additional cross-members at a load of up to 1,000 N/m². The spacing stated in the table applies to greater loads. The load-bearing capacity of PLEXIGLAS® Resist S5P 32/1230 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.

Support spacing

Load [N/m ²]	Support spacing [m]
750	no cross members
1000	no cross members
1250	5,7
1500	4,2
1750	3,7
2000	3,3
2250	3,1
2500	2,9
2750	2,7
3000	2,6

³ Europ. Patent 149 182

Technical data (Typical values)

Available length	2,000 to 7,000 mm
Light transmittance τ_{D65}	
Clear 00721 (NO DROP)	approx. 68%
Clear 00721 C	approx. 66%
White WRS01	approx. 45%
Grey 7RS01 (NO DROP)	approx. 41%
Total energy transmittance g	
Clear 00721 (NO DROP)	approx. 64%
Clear 00721 C	approx. 62%
White WRS01	approx. 41%
Grey 7RS01 (NO DROP)	approx. 32%
Heat transfer coefficient k	1,5 W/m ² K
Coefficient of linear thermal expansion α	0,09 mm/m °C
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. 5.8 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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