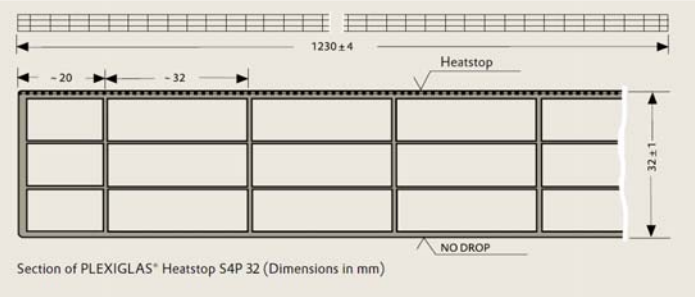
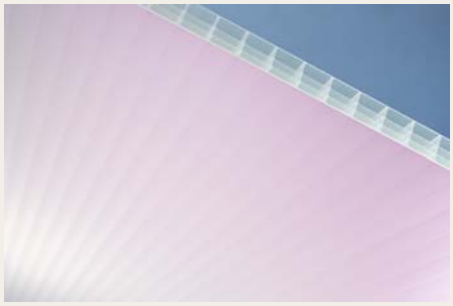
Technical Information

PLEXIGLAS® Heatstop

PLEXIGLAS® Heatstop Opal S4P 32/1230-32



Section of PLEXIGLAS® Heatstop S4P 32 (Dimensions in mm)



Product

PLEXIGLAS® Heatstop[1] Opal S4P 32 is an infrared-reflecting, highly heat-insulating and weather-resistant quadruple-skin sheet made of impact-modified acrylic (polymethylmethacrylate, PMMA). This quadruple-skin sheet is installed with the coextruded Heatstop coating, fused with the sheet material, facing upwards/outwards.

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® Heatstop Opal S4P 32 possesses the following properties:

- The sheets reduce the heat build-up in rooms due to sunlight by almost 60 %.
- The color impression beneath the glazing is very pleasant and cool.
- The sheets offer excellent protection against an excess of harmful UV radiation.
- They are impact-resistant during transport, handling and installation.
- They are highly heat-insulating.
- They help to save energy and minimize CO_2 emissions.
- They are hail-resistant (to hailstones with an impact energy up to 1 joule).
- This comes with a 10-year guarantee.

[1] Europ. Patent 548 822

Applications

Due to these properties PLEXIGLAS® Heatstop Opal S4P 32 is suitable for the following applications:

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

Processing

For PLEXIGLAS® Heatstop Opal S4P 32 the following processing guideline is available:

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

Product range

PLEXIGLAS® Heatstop Opal S4P 32 is available in the following grades and sizes:

- Length: 2,000 to 7,000 mm
- Width: 1,230 mm
- Colors: White (reddish-purple)

For details please refer to the PLEXIGLAS® sales handbook.

Heatstop Opal Effect

The PLEXIGLAS® Heatstop Opal multi-skin sheet very effectively reduces solar heat radiation by means of special technology. The Heatstop Opal coating gives the sheets an attractive, reddish-purple surface gloss. Seen from below, the sheets look pleasantly cool, as befits their function. This color has an iridescent effect. The color impression varies depending on the viewing angle and lighting conditions.

Heat insulation

With its excellent U-value the sheets meet the requirements of the German statutory order on heat insulation. It is therefore suitable for highly heat-insulating glazing in private buildings as well as in factories and sports halls.

NO DROP coating

The sheet is installed with the side bearing the water-dispersing NO DROP[2] coating facing downwards / inwards. This offers the advantage that any condensation flows off as a continuous film, preventing uncontrolled dripping and letting more light into the glazed area. The NO DROP coating is covered by a protective layer applied during manufacture. If not automatically washed off by condensation, the protective layer can also be removed manually with water and a sponge or by using a hose. 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® Heatstop Opal S4P 32/1230 quadruple -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® Heatstop Opal S4P 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.

[2] Europ. Patent 149 182

Support spacing

Load [N/m²]	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

Technical data (Typical values)

Available length	2,000 to 7,000 mm
Light transmittance τ_{D65}	
White WA013 NO DROP	approx. 40 %
Total energy transmittance g	
White WA013 NO DROP	approx. 30 %
Heat transfer coefficient k	1,6 W/m²K
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. 5.6 kg/m²

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

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