







It might be cold and unpleasant outside, but UNIGLAS® products will provide you with indoor comfort.

from the insulating glass systems with hollow profiles, the systems with a thermoplastic edge are called  $\mathsf{UNIGLAS}^{\$} \mid \mathsf{STAR}^\mathsf{TPS}$ .

## **ADVANTAGES OF TPS**

What's known as warm edge spacers, such as the thermally optimised spacers (TPS), enhance this feeling, also ensuring optimised thermal insulation in the area around the glass edge. This makes the surface temperatures on the room side higher than with conventional spacers made of aluminium or steel. It also minimises the formation of condensation on the inside.

In addition, thermally optimised spacers improve the heat transmittance coefficients of the entire window element.

The TPS (Thermo Plastic Spacer) is a spacer made of thermoplastic material with an embedded desiccant. It uses no heat-conducting metals thus achieving better thermal insulation in the edge area of the insulating glass. To differentiate

- Significantly improved Ψ value in the edge area and therefore a better U-value of the window overall
- More uniform surface temperature
- Huge reduction in condensation forming at the edge of the glazing
- Stress on the glass minimised by the flexible edge seal
- Energy saving and enhanced comfort
- No irritating reflections due to metallic spacers, but colour matching the window frame
- Superior quality and almost unlimited service life
- Minimal thickness tolerances



## WHAT DOES TPS ACTUALLY MEAN?

Where glass and frame meet, there is a thermal bridge due to geometry and material. With TPS, this thermal bridge can be significantly minimised.

The improved U-value in the edge area of the glazing largely reduces condensation along the window frame on the glass surface inside the room. This puts less strain on the glazing system and window frame.

The TPS system reliably eliminates any visual restrictions caused by bulging or warping.
Glazing with curved edges in particular achieves outstanding quality and dimensional accuracy.

With conventional systems, exact manual positioning of the spacers for triple glazing is virtually impossible to achieve and a visual offset may occur. The fully automatic application with

TPS, on the other hand, ensures absolutely precise execution.

The great accuracy achieved in applying the TPS spacer results in an equally accurate finish for the width of the edge seal. This is a major advantage for systems with a low glazing rebate upstand, as it prevents the edge seal from being visible in the clear area of the window.

In addition to the good  $U_w$  values achieved in the production of triple insulating glass with TPS, there is no discernible offset between the two spacers and frames; plus, the black TPS spacer is not visually noticeable in the window frame as there are no disturbing light reflections.





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