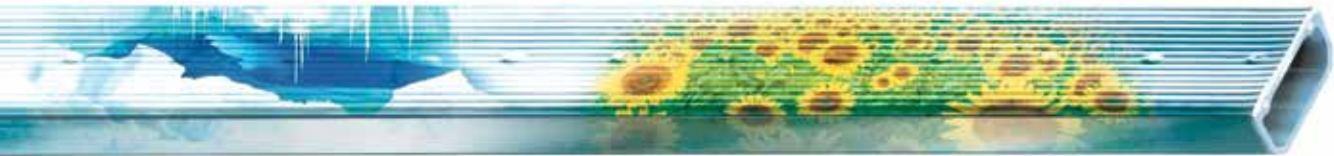




www.thermix.de/en

*The more intelligent way to insulate: Thermix[®] TX.N[®] plus –
“Warm edge” spacers for insulating glass*

Thermix[®] TX.N[®] plus – this is “warm edge”



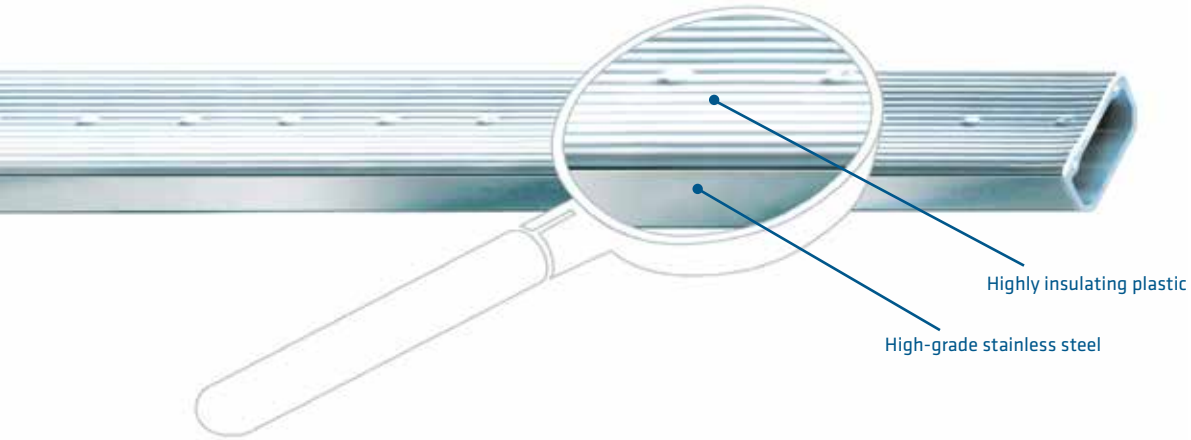
Thermix® TX.N® plus – our best “warm edge” ever

Thermix® “warm edge” spacers are world wide synonymous with the effective prevention of thermal bridges in windows, meaning significant cuts in energy and fuel bills and a sustainable improvement to any room climate. Our products are the culmination of almost two decades of development, production and application experience in the field of spacers made from high performance plastics. And they reflect the concentrated engineering expertise and passionate attention to detail of our highly skilled workforce.

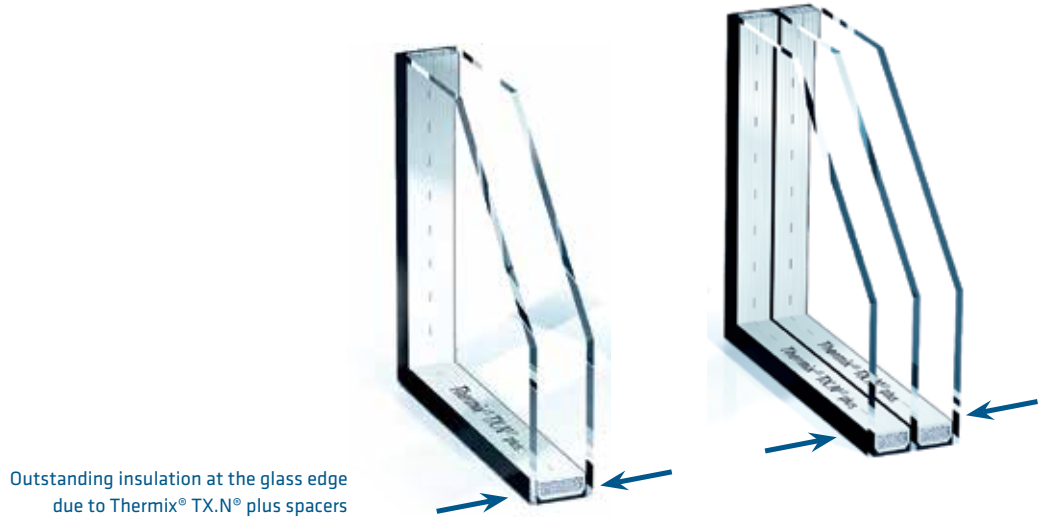
Advantages you profit from:

- Outstanding form stability
- Reduced overbending angle
- Higher bending and processing speed
- Excellent productivity and efficiency
- Optimum corner formation

Thermix[®] TX.N[®] plus – simply the best



The combination of a high-grade stainless steel alloy and highly insulating plastic ensures that the respective material characteristics are optimally used. This results in best insulating values.



It's all a matter of the Psi value


$$U_w = \frac{A_g \cdot U_g + A_f \cdot U_f + l_g \cdot \psi_g}{A_g + A_f}$$

Representative Psi values for Thermix® TX.N® plus

Frame profile	Metal with thermal break	Plastic	Wood	Wood-metal
Double insulating glass 4/16/4 $\frac{W}{m^2K}$ $U_g = 1.1 \frac{W}{m^2K}$	0.050 $\frac{W}{mK}$	0.041 $\frac{W}{mK}$	0.041 $\frac{W}{mK}$	0.045 $\frac{W}{mK}$
Triple insulating glass 4/12/4/12/4 $U_g = 0.7 \frac{W}{m^2K}$	0.045 $\frac{W}{mK}$	0.039 $\frac{W}{mK}$	0.040 $\frac{W}{mK}$	0.043 $\frac{W}{mK}$



The equivalent thermal conductivity was determined in accordance with ift directive WA 17/1. The representative Psi values calculated on this basis were determined in accordance with ift directive WA 08/2. To prevent errors due to rounding, the Psi values are specified in the data sheet to an accuracy of 0.0001 W/mK. The method used for calculated determination of the Psi values is accurate to $\pm 0.003 \text{ W/mK}$. Differences of less than 0.005 W/mK are insignificant. For further information, refer to technical leaflet 004/2008 "Warm Edge' Guideline for Windows" issued by the German Flat Glass Association.

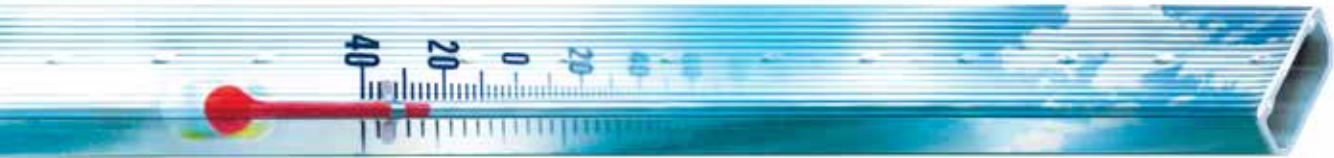
Thermix[®] TX.N[®] plus – processing the simple way



For the manufacture of insulating glass Thermix® TX.N® plus spacers can be processed by using conventional methods – no matter if you produce frames with corner keys or bent frames.



Thermix[®] TX.N[®] plus spacers considerably reduce the problem of condensation



In comparison to conventional aluminium spacers, Thermix® TX.N® plus spacers considerably minimize the thermal bridge at the glass edge.

Temperatures on the room side are much higher (“warm edge”) – precious heat energy stays inside the room. The risk of condensation and mould formation is minimized. Thermix® TX.N® plus spacers contribute to a healthy room climate.



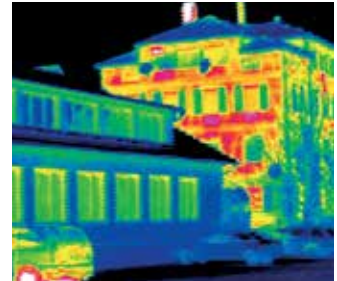
Higher risk of condensation and mould formation due to conventional aluminium spacers



Better room climate with Thermix® TX.N® plus “warm edge” spacers



Windows with “cold edge”



Windows with “warm edge”

Photo: ebök Planung und Entwicklung GmbH,
www.eboek.de

Thermix® TX.N® plus – the wide range



Thermix® TX.N® plus spacers are available in the standard colours black and light grey as well as in a range of additional special colours. The offered range of Thermix® TX.N® plus spacers encompasses the profile widths 8, 10, 12, 14, 15, 16, 18, 20, 22 and 24 mm.



8 mm



10 mm



12 mm



14 mm



15 mm



16 mm



18 mm



20 mm



22 mm



24 mm

Thermix[®] muntin bars

All Thermix[®] muntin bars are available in matching colours for Thermix[®] TX.N[®] plus spacers.

Thermix[®] muntin bars are rectangular hollow chamber profiles, which makes them significantly more easy and safe to work with than a duplex solution made of spacer profiles.



21.4 x 9.4 mm



25.4 x 9.4 mm



31.4 x 9.4 mm



21.4 x 11.4 mm



25.4 x 11.4 mm



31.4 x 11.4 mm



A perfect match – accessories
for Thermix[®] TX.N[®] plus spacers
and Thermix[®] muntin bars

Thermix® TX.N® plus – advantages at a glance



- Higher surface temperatures at the edge of the glass on the room side (“warm edge”)
- Virtually no danger of condensation formation leading to damage and mould, which can be a health risk
- More favourable isothermal flow in windows and facades due to a thermal break at the edge bond of the glazing
- Considerably better values of the thermal transmission coefficients Ψ and U_w
- Active environmental protection: Less heating losses reduce CO₂ emissions
- Attractive design
- Can be built into all standard insulating glass products
- Approved according to valid insulating glass standard EN 1279 Part 2, 3 and 6
- Avis technique/CEKAL registered insulating glass components
- UV resistance tested in accordance with EN ISO 4892-1 and 2



Thermix® TX.N® plus spacers – versatile and cost-effective

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