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Passive House for all!

TECHNOFORM

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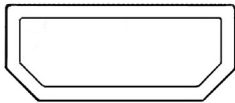
Data sheet Psi values for windows

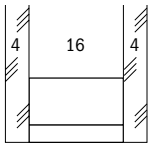
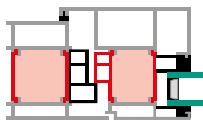
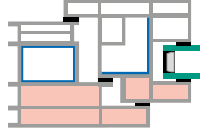
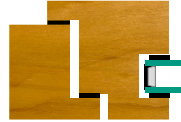

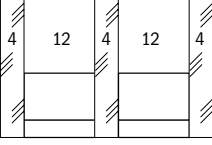
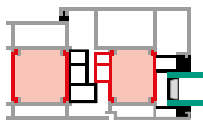
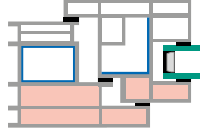
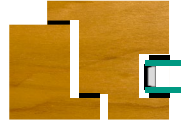

based on determination of the equivalent thermal conductivity of spacers by measurement

TECHNOFORM GLASSINSULATION



Technoform Glass Insulation GmbH
Matthäus-Merian-Str. 6
D - 34253 Lohfelden

Cross-section	Product name	Space height in mm	Material	Thickness d in mm
	TGI-Spacer Precision		6.5	Glass-fibre reinforced Plastic

Representative glass constructions	Metal with thermal break	Plastic	Wood	Wood/Metal
 Double-sheet insulating glass $U_g = 1.1 \text{ W/m}^2\text{K}$				
Representative psi value double-sheet thermally insulating glass W/mK	0.036	0.032	0.031	0.032
 Triple-sheet insulating glass $U_g = 0.7 \text{ W/m}^2\text{K}$				
Representative psi value triple-sheet thermally insulating glass W/mK	0.031	0.030	0.029	0.030

Two Box model Characteristic values		Space between panes in mm	$\lambda_{eq,2B}$ in W/mK	
			Box 1 · $h_1 = 3 \text{ mm}$	Box 2 · $h_2 = 6.5 \text{ mm}$
		Can be used for all spacer widths	0.40	0.14

Explanations

The equivalent thermal conductivity has been determined in accordance with the ift guideline WA-17 eng/1 "Thermally improved spacers – Determination of the equivalent thermal conductivity by measurement". The representative linear heat transfer coefficients calculated in this way (representative psi values) apply to typical frame profiles and glazing for the determination of the heat transfer coefficient U_w of windows. They have been determined under the boundary conditions (frame profiles, glazing, glass mounting depth, back covering, primary and secondary sealant) defined in the ift guideline WA-08 eng/3 "Thermally improved spacers – Part 1: Determination of the representative Psi value for window frame profiles". This guideline also governs the area of validity and application of the representative psi values. In order to avoid rounding errors, the psi values in the data sheet have been given at 0.001 W/mK. The method for the arithmetical determination of the psi values has an accuracy of $\pm 0.003 \text{ W/mK}$. Differences of less than 0.005 W/mK are not significant. For further information, refer to the Bulletin 004/2008 "Guide to Warm Edge" of Bundesverband Flachglas.

Characteristic values determined by:

Hochschule **Rosenheim**
University of Applied Sciences



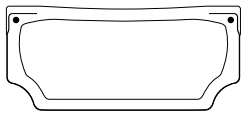


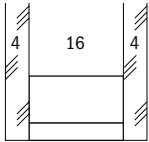
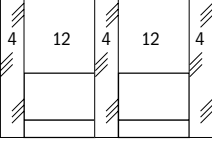
Data sheet Psi values for windows

based on determination of the equivalent thermal conductivity of spacers by measurement

TECHNOFORM

Technoform Glass Insulation GmbH
 Matthäus-Merian-Str. 6
 D - 34253 Lohfelden

Cross-section	Product name	Space height in mm	Material	Thickness d in mm
	TGI Spacer M		6.85	Stainless steel Plastic

Representative frame profile	Representative glass constructions	Metal with thermal break	Plastic	Wood	Wood/Metal
Representative psi value double-sheet thermally insulating glass W/mK	 Double-sheet insulating glass $U_g=1.1 \text{ W/m}^2\text{K}$	0.049	0.040	0.040	0.044
	 Triple-sheet insulating glass $U_g=0.7 \text{ W/m}^2\text{K}$	0.044	0.038	0.039	0.042

Two Box model Characteristic values		Space between panes in mm	$\lambda_{eq,2B}$ in W/mK	
			Box 1 · h ₁ = 3 mm	Box 2 · h ₂ = 6.9 mm
		Can be used for all spacer widths	0.40	0.31

Explanations

The equivalent thermal conductivity has been determined in accordance with the ift guideline WA-17 eng/1 "Thermally improved spacers – Determination of the equivalent thermal conductivity by measurement". The representative linear heat transfer coefficients calculated in this way (representative psi values) apply to typical frame profiles and glazing for the determination of the heat transfer coefficient U_w of windows. They have been determined under the boundary conditions (frame profiles, glazing, glass mounting depth, back covering, primary and secondary sealant) defined in the ift guideline WA-08 eng/3 "Thermally improved spacers – Part 1: Determination of the representative Psi value for window frame profiles". This guideline also governs the area of validity and application of the representative psi values. In order to avoid rounding errors, the psi values in the data sheet have been given at 0.001 W/mK. The method for the arithmetical determination of the psi values has an accuracy of $\pm 0.003 \text{ W/mK}$. Differences of less than 0.005 W/mK are not significant. For further information, refer to the Bulletin 004/2008 "Guide to Warm Edge" of Bundesverband Flachglas.

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