

Data sheet Psi values for facade profiles

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



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	Product name	Spacer height in mm	Material	Thickness d in mm
Cross-section	MULTITECH 	6.5	Styrene/Acrylonitrile/ Copolymer Multilayer metalized PETP foil	0.9 0.04

Representative facade profiles	Representative glass constructions	Wood/metal	Metal with thermal break ($d_i = 100$ mm)	Metal with thermal break ($d_i = 200$ mm)

Representative psi value double-sheet thermally insulating glass W/mK	 Double-sheet insulating glass $U_g = 1.1$ W/m ² K	0.055	0.075	0.079
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Representative psi value triple-sheet thermally insulating glass W/mK	 Triple-sheet insulating glass $U_g = 0.7$ W/m ² K	0.050	0.062	0.065
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Two-Box model Characteristic values		Space between panes in mm	$\lambda_{eq,2B}$ in W/mK			
		Can be used for all spacer widths	Box 1 · $h_1 = 6$ mm	0.40	Box 2 · $h_2 = 6.5$ mm	0.13

Explanations
The equivalent thermal conductivity has been determined in accordance with ift guideline WA-17eng/1 "Thermally improved spacers – Determination of the equivalent thermal conductivity by measurement". The representative linear heat transfer coefficients (representative psi values) determined thereby apply to typical facade profiles and glazing for determination of the coefficients of thermal conductivity U_{CW} of curtain walls. They have been determined under the framework conditions (frame profiles, glazing, glass mounting depth, back covering, primary and secondary sealant) defined in ift guideline WA-22eng/1 "Thermally improved spacers – Part 3: Determination of the representative psi value for facade 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 specified to the nearest 0.001 W/mK. The calculation method for determining the psi values has an accuracy of ± 0.003 W/mK. Differences of less than 0.005 W/mK are not significant. Further information can be found in the bulletin 004/2008 "Guide to Warm Edge" published by Bundesverband Flachglas.

Characteristic values determined by:

Hochschule **Rosenheim**
University of Applied Sciences

