ift-Nachweis

Number	23-002372-PR01 (NW-K20-06-en-01)
Owner	COSMOS ALUMINIUM S.A. ETEM 8th km National Road Larissa-Athens Nikea Intersection 41110 Larissa Greece
Product	Metal profiles with thermal break
Designation	System: ES64
Details	Material Aluminium alloy - painted - powder coated; Projected width from - to 37 mm - 92 mm; Structural depth 64 mm; Thickness of infill 31 mm; Edge cover of infill 13 mm; **Thermal break:** Material Polyamide 6.6 with 25 % glass fibre (PA 66 GF25); Surface treatment of profile slightly oxidized; Length of bars 16 mm; Thickness of bars 1.8 mm; Casement; Designation E6264201 / E6264202 / E6264203; Frame; Designation E6264102 / E6264103 / E6264104 / E6264105
Special features	

Result

Calculation of thermal transmittance (Radiosity-Method) according to EN ISO 10077-2:2017-07

$$U_f = 3.9 \text{ W/(m²K)} - 10 \text{ W/(m²K)}$$

ift Rosenheim
16.10.2023

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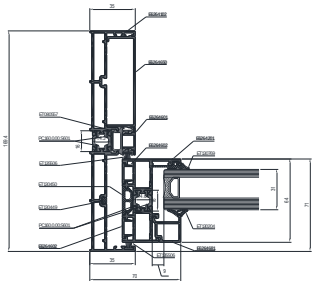
Basis *)

EN ISO 10077-2:2017-07
*) and corresponding national versions e.g. DIN EN)

Test report: 23-002372-PR01 (PB-K20-06-en-01)

Representation
Exemplary test specimen



For determing the Uf value the insulation glass unit was supplanted by a replacement panel.

Instructions for use

The results obtained can be used as evidence in accordance with the above basis.

Validity

There is no time limit.
When using this document the up-to-dateness of above basis and the conformity of the product have to be observed.

The data and detailed results given relate solely to the tested/described specimen.

This test does not allow any statement to be made on further characteristics of the present structure regarding performance and quality, in particular the effects of weathering and ageing.

Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies. The document may only be published in full.

Identity-Check

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Type list for calculations of thermal transmittance according to EN ISO 10077-2:2017-07

Test result

Calculated thermal transmittance:

Specimen No.	Description	Projected width b_f in mm	Filling thickness d_p in mm	U_f [1)2)] in W/(m²K)
-01	E6264201 (internal)_E6264102 (at sides)	70	31	4,5
-02	E6264201_E6264201	49	31	8,2
-03	E6264201 (external)_E6264102 (at sides)	70	31	4,9
-04	E6264201 (internal)_E6264102 (at top)	71	31	4,5
-05	E6264203 (internal)_E6264102 (at bottom)	91	31	4,3
-06	E6264201 (external)_E6264102 (at top)	71	31	5,0
-07	E6264203 (external)_E6264102 (at bottom)	91	31	4,6
-08	E6264202_E6264202	37	31	10
-09	E6264201 (internal)_E6264103 (at sides)	70	31	4,6
-10	E6264201 (external)_E6264103 (at sides)	70	31	5,3
-11	E6264201 (internal)_E6264103 (at top)	71	31	4,5
-12	E6264203 (internal)_E6264103 (at bottom)	91	31	4,3
-13	E6264201 (external)_E6264103 (at top)	71	31	5,4
-14	E6264203 (external)_E6264103 (at bottom)	91	31	4,8
-15	E6264201 (internal)_E6264104-E6264105 (at sides)	70	31	4,5
-16	E6264201 (external)_E6264104-E6264105 (at sides)	70	31	4,8
-17	E6264201 (external)_E6264104-E6264105 (at top)	71	31	4,9
-18	E6264201 (middle)_E6264104-E6264105 (at top)	71	31	4,2
-19	E6264201 (internal)_E6264104-E6264105 (at top)	71	31	4,5
-20	E6264203 (external)_E6264104-E6264105 (at bottom)	92	31	4,5
-21	E6264203 (middle)_E6264104-E6264105 (at bottom)	91	31	3,9
-22	E6264203 (internal)_E6264104-E6264105 (at bottom)	91	31	4,3

1) Calculated and rounded according to EN ISO 10077-2 using the radiosity method.

2) The calculated values of the thermal transmittance can be used for profiles made of aluminium with lacquered or powder coated surface and with a slightly oxidized surface in the thermal break. The emissivity of low emissive layers must be ensured by a factory production control.