ift-Nachweis

Number	20-003557-PR02 (NW -01-K20-06-en-01)
Owner	ETEM COMMERCIAL AND INDUSTRIAL LIGHT METALS S.A. 1, Iroon Polytechniou Str., 190 18 Magoula Greece
Product	Facade profiles - metal
Designation	System: EF50 SG
Details	Material Aluminium alloy - anodised - painted - powder coated; Projected width 50 mm; Thickness of infill from - to 28 mm - 36 mm; Edge cover of infill 15 mm; **Internal insulator:** Material User specific - Plamaframe; Cross section (W x T) 20 mm x 26 mm; Mullion; Designation E8050102 / E8050109; Internal box height 64 mm / 249 mm; Transom; Designation E8050359 / E-85350; Internal box height 6 mm / 253 mm; **Internal glazing gasket:** Designation ET130470.00 / ET130480.00 / ET130463.00 / ET130474.00; Thickness 10 mm – 12 mm / 4 mm – 6 mm; **External glazing gasket:** Material Silicone with filler; Glazing; Thermal transmittance Ug in W/(m²K) 1.0 (as specified by client); Configuration in mm 6/16/6 – 6/16/8 – 8/16/6 – 8/16/8 – 8/18/6 – 10/16/8 – 10/18/6 – 10/18/8; **Glazing mounting profile (screw joint):** Material Aluminium alloy; Cross section (W x T) 22 mm x 9 mm; Length 2 x 60 mm; Distance 250 mm
Special features	

Result

Calculation of thermal transmittance (Radiosity-Method) according to EN ISO 10077-2:2017-07 and based on EN ISO 12631:2017-07

$$U_{t,m} = 1.3\ \text{W/(m²K)} – 1.6\ \text{W/(m²K)}$$

Ψ_g = 0.10 W/(mK) – 0.13 W/(mK)

ift Rosenheim
22.08.2022

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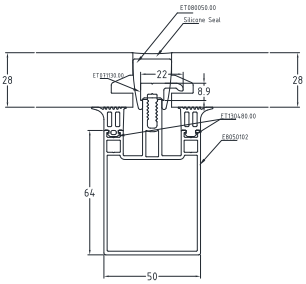
Basis *)

EN ISO 10077-2:2017-07

Based on EN ISO 12631:2017-07
*) and corresponding national versions e.g. DIN EN)

Test report: 20-003557-PR02 (PB -01-K20-06-en-01)

Representation
Exemplary test specimen



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	$U_{f,m}$ [1)2)] in W/(m²K)
-01	E8050109_ET130480.00 - 28 mm	50	28	1,6
-02	E8050109_ET130470.00 - 30 mm	50	30	1,6
-03	E8050109_ET130480.00 - 30 mm	50	30	1,5
-04	E8050109_ET130470.00 - 32 mm	50	32	1,5
-05	E8050109_ET130480.00 - 32 mm	50	32	1,5
-06	E8050109_ET130470.00 - 34 mm	50	34	1,5
-07	E8050109_ET130480.00 - 34 mm	50	34	1,5
-08	E8050109_ET130470.00 - 36 mm	50	36	1,5
-09	E8050102_ET130480.00 - 28 mm	50	28	1,5
-10	E8050102_ET130470.00 - 30 mm	50	30	1,5
-11	E8050102_ET130480.00 - 30 mm	50	30	1,5
-12	E8050102_ET130470.00 - 32 mm	50	32	1,5
-13	E8050102_ET130480.00 - 32 mm	50	32	1,4
-14	E8050102_ET130470.00 - 34 mm	50	34	1,4
-15	E8050102_ET130480.00 - 34 mm	50	34	1,4
-16	E8050102_ET130470.00 - 36 mm	50	36	1,4
-17	E8050359_ET130463.00 - 28 mm	50	28	1,6
-18	E8050359_ET130474.00 - 30 mm	50	30	1,6
-19	E8050359_ET130463.00 - 30 mm	50	30	1,6
-20	E8050359_ET130474.00 - 32 mm	50	32	1,6
-21	E8050359_ET130463.00 - 32 mm	50	32	1,5
-22	E8050359_ET130474.00 - 34 mm	50	34	1,5
-23	E8050359_ET130463.00 - 34 mm	50	34	1,5
-24	E8050359_ET130474.00 - 36 mm	50	36	1,5
-25	E-85350_ET130463.00 - 28 mm	50	28	1,4
-26	E-85350_ET130474.00 - 30 mm	50	30	1,4
-27	E-85350_ET130463.00 - 30 mm	50	30	1,4
-28	E-85350_ET130474.00 - 32 mm	50	32	1,4
-29	E-85350_ET130463.00 - 32 mm	50	32	1,4
-30	E-85350_ET130474.00 - 34 mm	50	34	1,3
-31	E-85350_ET130463.00 - 34 mm	50	34	1,3
-32	E-85350_ET130474.00 - 36 mm	50	36	1,3

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

[2)] Calculated by length-rated profile sections with and without aluminium mounting profile

Calculated linear thermal transmittance:

Specimen No.	Description	Projected width b_f in mm	Thermal transmittance $U_{p/g}$ in W/(m²K)	Filling thickness $d_{p/g}$ in mm	Ψ_g [1] in W/(m·K)
-01g	Spacer_6/16/6 (Mullion)	50	1,0	28	0,11
-02g	Spacer_6/16/8 (Mullion)	50	1,0	30	0,11
-03g	Spacer_8/16/6 (Mullion)	50	1,0	30	0,11
-04g	Spacer_8/16/8 (Mullion)	50	1,0	32	0,11
-05g	Spacer_8/18/6 (Mullion)	50	1,0	32	0,11
-06g	Spacer_10/16/8 (Mullion)	50	1,0	34	0,11
-07g	Spacer_10/18/6 (Mullion)	50	1,0	34	0,10
-08g	Spacer_10/18/8 (Mullion)	50	1,0	36	0,11
-17g	Spacer_6/16/6 (Transom)	50	1,0	28	0,12
-18g	Spacer_6/16/8 (Transom)	50	1,0	30	0,13
-19g	Spacer_8/16/6 (Transom)	50	1,0	30	0,12
-20g	Spacer_8/16/8 (Transom)	50	1,0	32	0,13
-21g	Spacer_8/18/6 (Transom)	50	1,0	32	0,12
-22g	Spacer_10/16/8 (Transom)	50	1,0	34	0,13
-23g	Spacer_10/18/6 (Transom)	50	1,0	34	0,12
-24g	Spacer_10/18/8 (Transom)	50	1,0	36	0,12

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