

Number	20-003368-PR01 (NW-K20-06-en-02)
Owner	Europa Profil Aluminium S.A. 56th Klm National Highway Athens - Lamia 32011 Innofita Viotas Greece
Product	Metal profiles with thermal break
Designation	System: ESS 47
Details	Material Aluminium alloy - painted - powder coated; Projected width from - to 42 mm - 123 mm; Structural depth from - to 120 mm – 183 mm; Casement; Designation TH 8040 / TV 12206; Thickness of infill 30 mm; Edge cover of infill 11 mm; Frame; Designation TH 80109 / TH 80110 / TH 80111 / TH 80113 / TH 80114; Thermal break: Material Polyamide 6.6 with 25 % glass fibre (PA 66 GF25); Surface treatment of profile metallic surface (general, incl. galvanized); Length of bars from - to 22 mm – 24 mm; Thickness of bars from - to 1.4 mm - 2.0 mm; Additional profiles; Designation TV 80502 / TV 8006

Special features

Result

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



$$U_f = 2.7 \text{ W/(m}^2\text{K)} - 5.4 \text{ W/(m}^2\text{K)}$$

Basis *)

EN ISO 10077-2:2017-07

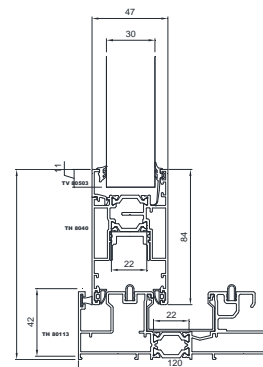
*) and corresponding national versions
e.g. DIN EN

Test report: 20-003368-PR01 PB-K20-06-en-01

Replaces
ift-Nachweis 20-003368-PR01
NW-K20-06-en-01 dated
10.11.2020

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.

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Konrad Huber, Dipl.-Ing. (FH)
Head of Testing Department
Building Physics



Till Stübgen, Dipl.-Ing. (FH)
Operating Testing Officer
Building Physics

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	$U_f^{1)}$ in $W/(m^2K)$
-01	TH8040 (internal) - TH80113 (at top)	116	30	4,0
-02	TH8040 (external) - TH80113 (at top)	116	30	4,2
-03	TH8040 (internal) - TH80113 (at bottom)	118	30	4,0
-04	TH8040 (external) - TH80113 (at bottom)	118	30	4,2
-05	TH8040 (internal) - TH80113 (at top) - TV 12206	116	30	4,0
-06	TH8040 (external) - TH80114 (at top) - TV 12206	116	30	3,9
-07	TH8040 (internal) - TH80114 (at bottom) - TV 12206	118	30	4,0
-08	TH8040 (external) - TH80114 (at bottom) - TV 12206	118	30	3,9
-09	TH8040 (internal) - TH80110 (at top)	123	30	4,6
-10	TH8040 (external) - TH80110 (at top)	123	30	4,4
-11	TH8040 (internal) - TH80110 (at bottom)	110	30	3,5
-12	TH8040 (external) - TH80110 (at bottom)	110	30	3,9
-13	TH 8040 (internal) - TH 80111 (on top)	123	30	4,6
-14	TH 8040 (center) - TH 80111 (on top)	123	30	4,0
-15	TH 8040 (external) - TH 80111 (on top)	123	30	4,4
-16	TH 8040 (internal) - TH 80111 (at bottom)	110	30	3,8
-17	TH 8040 (center) - TH 80111 (at bottom)	110	30	3,3
-18	TH 8040 (external) - TH 80111 (at bottom)	110	30	3,8
-19	TH 8040 (internal) - TH 80109 (At top) + TV 80502	116	30	3,3
-20	TH 8040 (internal) - TH 80109 (at bottom) + TV 80502	118	30	3,3
-21	TH 80109 (at bottom)	42	30	2,7
-22	TH 8040 - TH 8040	90	30	5,4

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

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