

ISO 10077-2:2017/~~DAM~~**FDAm** 1:2023(E)

ISO/TC_163/SC_2/~~AWG 15~~

Secretariat: ~~SIS~~ **SN**

Date: 2024-~~06~~**07**-29

Thermal performance of windows, doors and shutters — Calculation of thermal transmittance —

**Part 2:
Numerical method for frames**

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Performance thermique des fenêtres, portes et fermetures — Calcul du coefficient de transmission thermique

Partie 2: Méthode numérique pour les encadrements

AMENDEMENT 1

Partie 2: Méthode numérique pour les encadrements

AMENDEMENT 1

FDIS stage

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Foreword

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This document was prepared by [Technical Committee ISO/TC 163, Thermal performance and energy use in the built environment, Subcommittee SC 2, Calculation methods, in collaboration with](#) the European Committee for Standardization (CEN) Technical Committee CEN/TC 89, *Thermal performance of buildings and building components*, in [collaboration with ISO Technical Committee ISO/TC 163, Thermal performance and energy use in the built environment, Subcommittee SC 2, Calculation methods, in](#) accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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Thermal performance of windows, doors and shutters — Calculation of thermal transmittance —

Part 2: Numerical method for frames

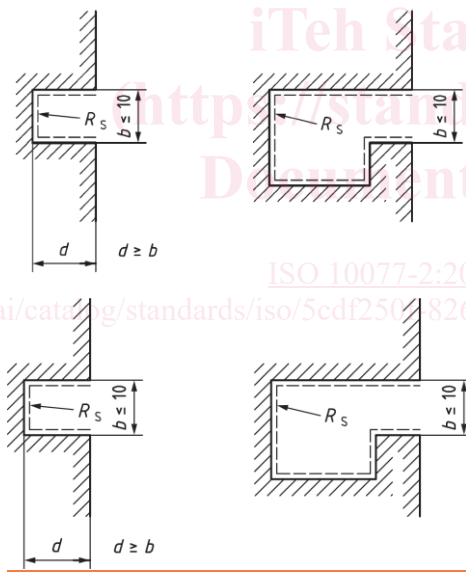
Amendment

AMENDMENT 1

6.4.2.4.1

Replace Figure 10 with the following figure and key:

Dimensions in millimetres



Key
 R_s surface resistance

Deleted Cells
Deleted Cells

Figure 10 — Examples for slightly ventilated cavities and grooves with small cross section

B.3

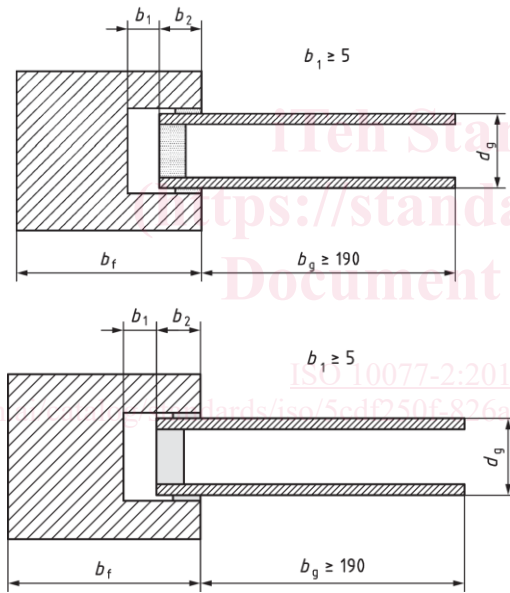
Replace the NOTE with the following:

NOTE Currently in this document, there are no choices between methods and the required input data foreseen that are to be kept open for completion as explained in B.1. To satisfy the need for congruence with all other EPB standards and to make explicitly clear that in this document there are no choices kept open, this annex and Annex A are retained.

F.2

Replace Figure F.2 with the following figure and key:

Dimensions in millimetres



Key

- b_f width of the frame
- b_g width of the glazing
- d_g thickness of the glazing

Figure F.2 — Schematic of profile section with glazing installed

H.2

2

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Replace Table H.1 with the following table:

Table H.1 — Boundaries

| Key | Surface resistance, R_s m ² ·K/W | Temperature, θ °C |
|-------------|--|-----------------------------|
| A adiabatic | infinity | — |
| B external | see Annex E | 0 |
| C internal | see Annex E | 20 |

Add the following key to Figure H.1:

Key

- A adiabatic boundary
- B external surface resistance
- C increased surface resistance
- a insulation panel
- d EPDM
- e polyamide 6,6 with 25-% glass fibre
- h aluminium^a

^a *All surfaces have emissivity 0,9 except for Figure H.2.*

* *All surfaces have emissivity 0,9 except for Figure H.2.*

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ht Add the following key to Figure H.2: <https://standards.iso.org/standards/iso/5cdf250f-826a-4050-8938-6d0f346558d1/iso-10077-2-2017-fdamd-1>

Key

- A adiabatic boundary
- B external surface resistance
- C increased surface resistance
- D emissivity 0,1
- a insulation panel
- d EPDM
- e polyamide 6,6 with 25-% glass fibre
- h aluminium^a

^a *All surfaces have emissivity 0,9 except for Figure H.2.*

* *All surfaces have emissivity 0,9 except for Figure H.2.*

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Add the following key to Figure H.3:

Key

- B external surface resistance
- a insulation panel
- d EPDM
- e polyamide 6,6 with 25-% glass fibre
- h aluminium^a
- ~~a All surfaces have emissivity 0,9 except for Figure H.2.~~
- ~~* All surfaces have emissivity 0,9 except for Figure H.2.~~

Add the following key to Figure H.4:

Key

- A adiabatic boundary
- B external surface resistance
- C increased surface resistance
- a insulation panel
- c PVC
- d EPDM
- g steel

Add the following key to Figure H.5:

Key

- A adiabatic boundary
- B external surface resistance
- C increased surface resistance
- a insulation panel
- b Soft wood
- d EPDM

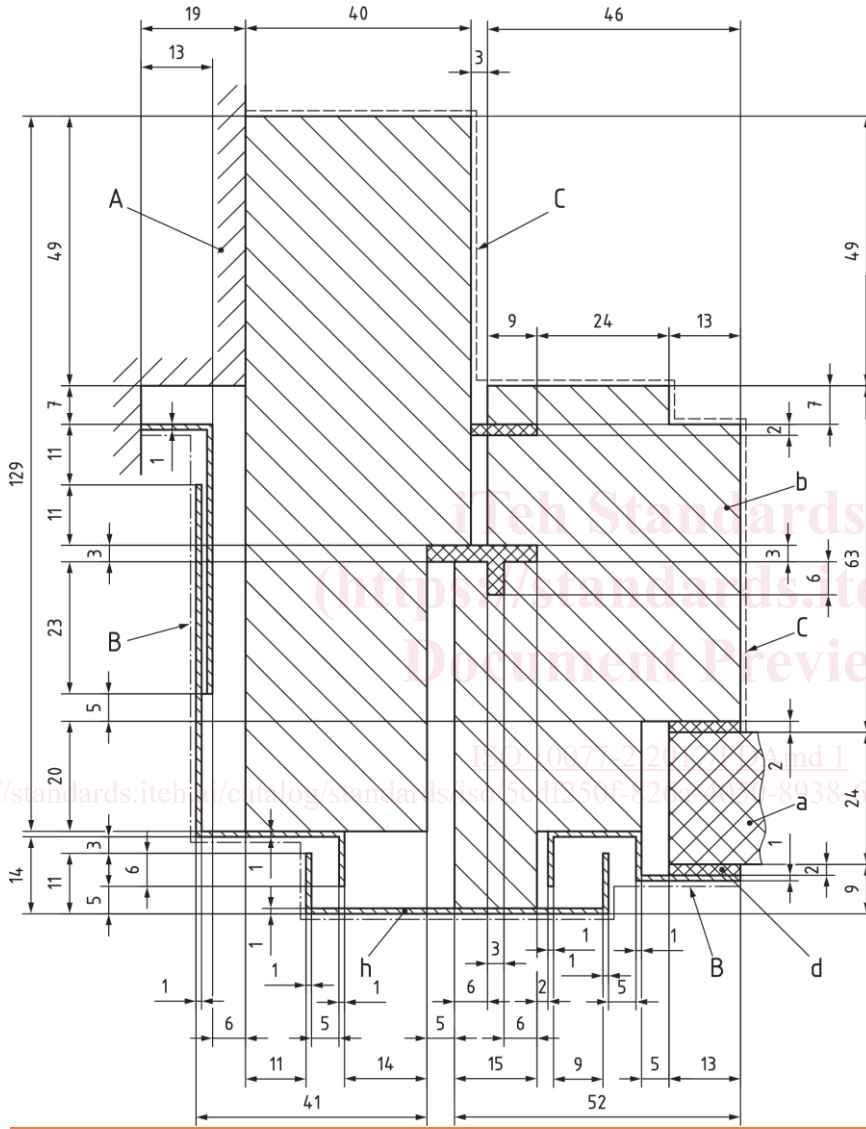
Replace Figure H.6 with the following figure and key:

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Dimensions in millimetres



Key

- A adiabatic boundary
- B external surface resistance
- C increased surface resistance

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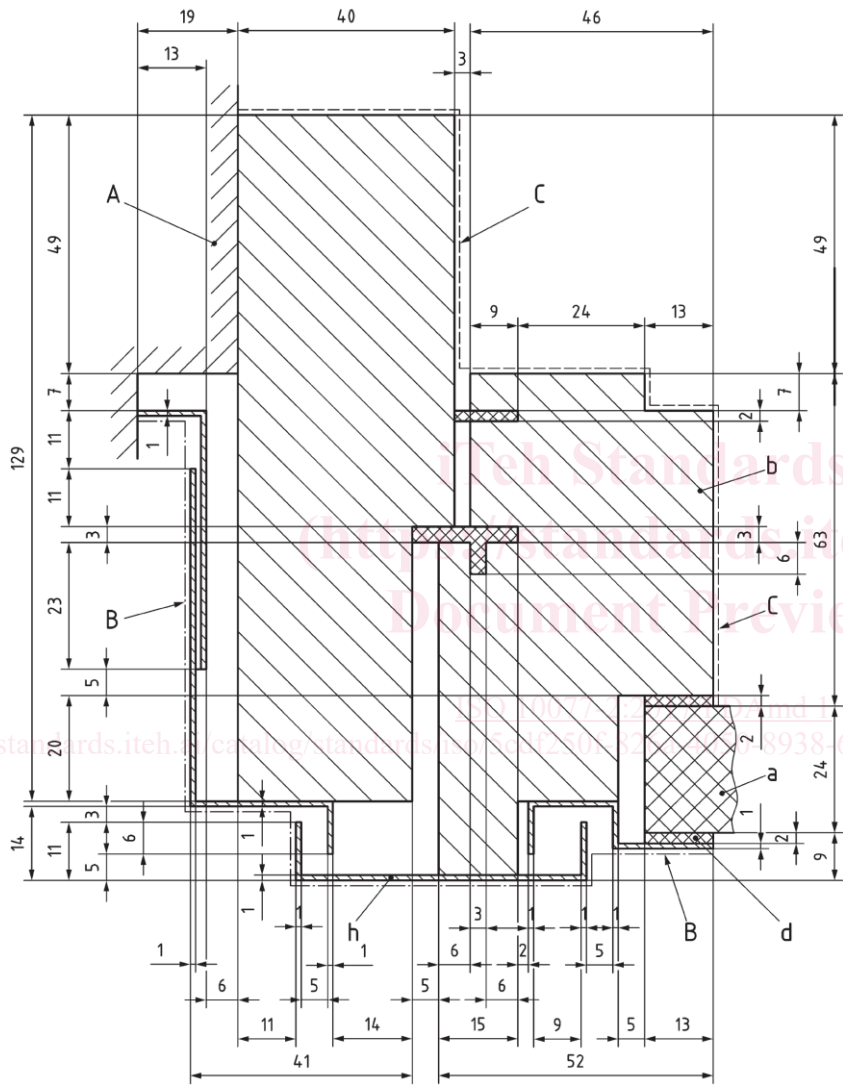
- a insulation panel
- b soft wood
- d EPDM

~~Replace Figure H.6 with the following figure and key.~~

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Key
 A **adiabatic boundary**
 B **external surface resistance**
 C **increased surface resistance**