International Standard

ISO 10077-2

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

Part 2: Numerical method for frames

AMENDMENT 1

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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

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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 accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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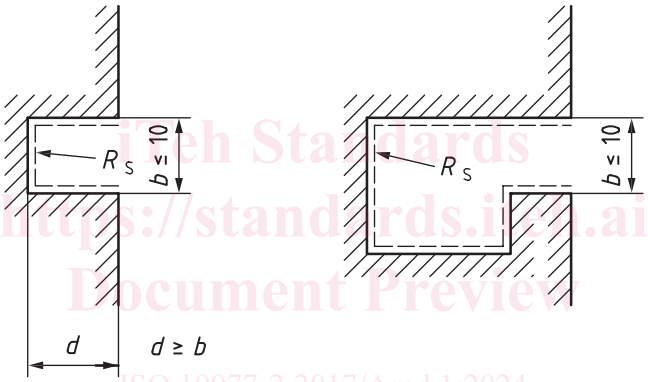
Part 2: Numerical method for frames

AMENDMENT 1

6.4.2.4.1

Replace Figure 10 with the following figure and key:

Dimensions in millimetres



Key

R_s surface resistance

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

B.3

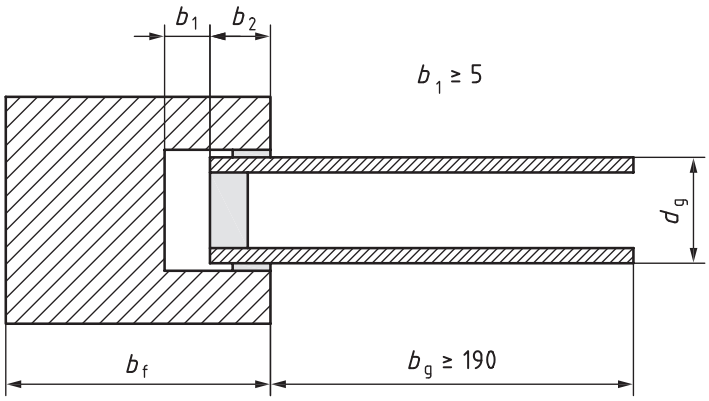
Replace the NOTE with the following:

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

Replace Table H.1 with the following table:

Table H.1 — Boundaries

Key	Surface resistance, R_s $m^2 \cdot K/W$	Temperature, θ °C
A adiabatic boundary	infinity	—
B external surface resistance	see Annex E	0
C internal surface resistance	see Annex E	20

Add the following key to Figure H.1:

Key

A adiabatic boundary

B external surface resistance

C internal 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.

Add the following key to Figure H.2:

Key

A adiabatic boundary
B external surface resistance
C internal 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.

Add the following key to Figure H.3:

Key

A adiabatic boundary
B external surface resistance
C internal 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.

Add the following key to Figure H.4:

Key

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

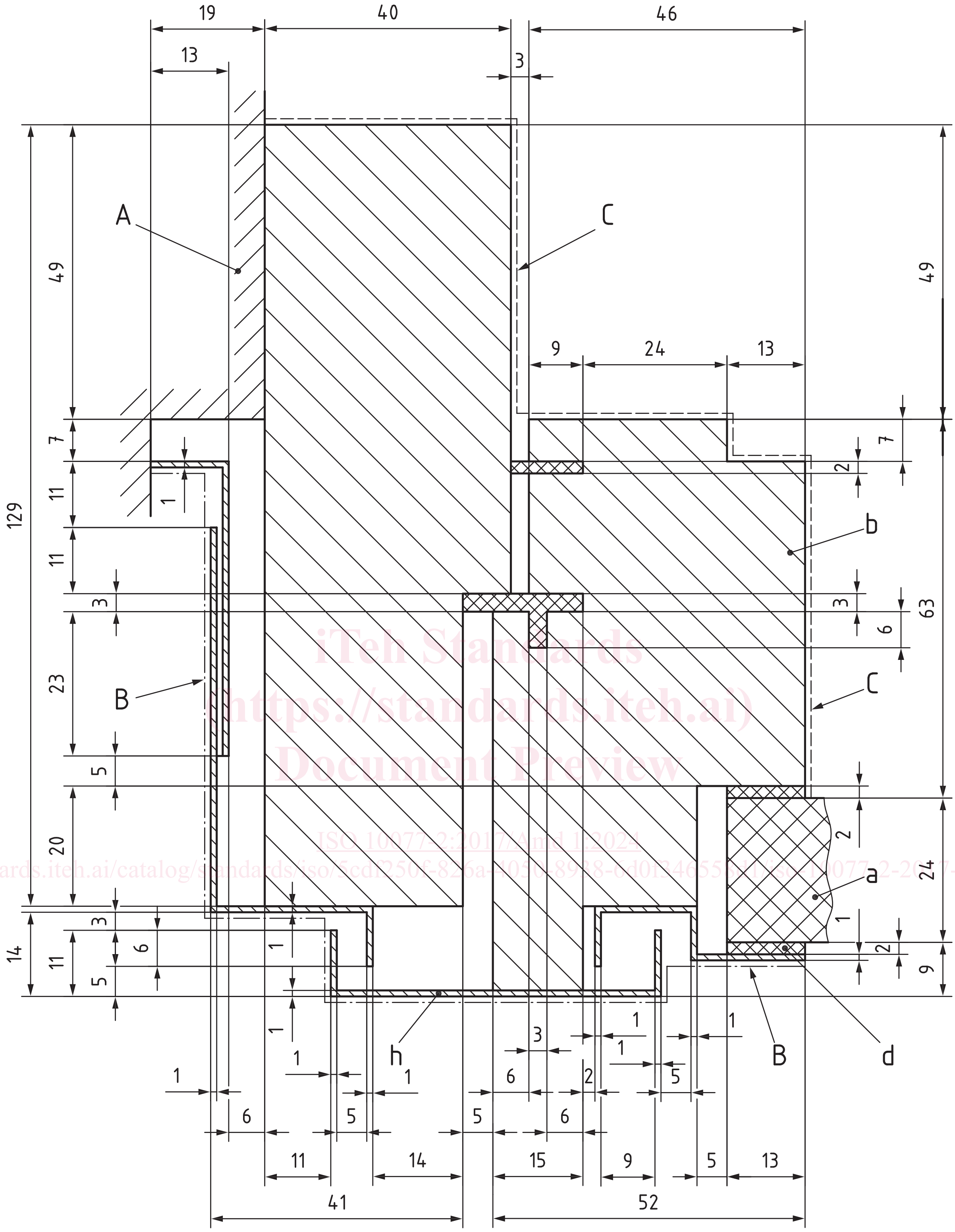
Add the following key to Figure H.5:

Key

A adiabatic boundary
B external surface resistance
C internal surface resistance
a insulation panel
b soft wood
d EPDM

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

Dimensions in millimetres



Key

A adiabatic boundary

B external surface resistance

C internal surface resistance

a insulation panel

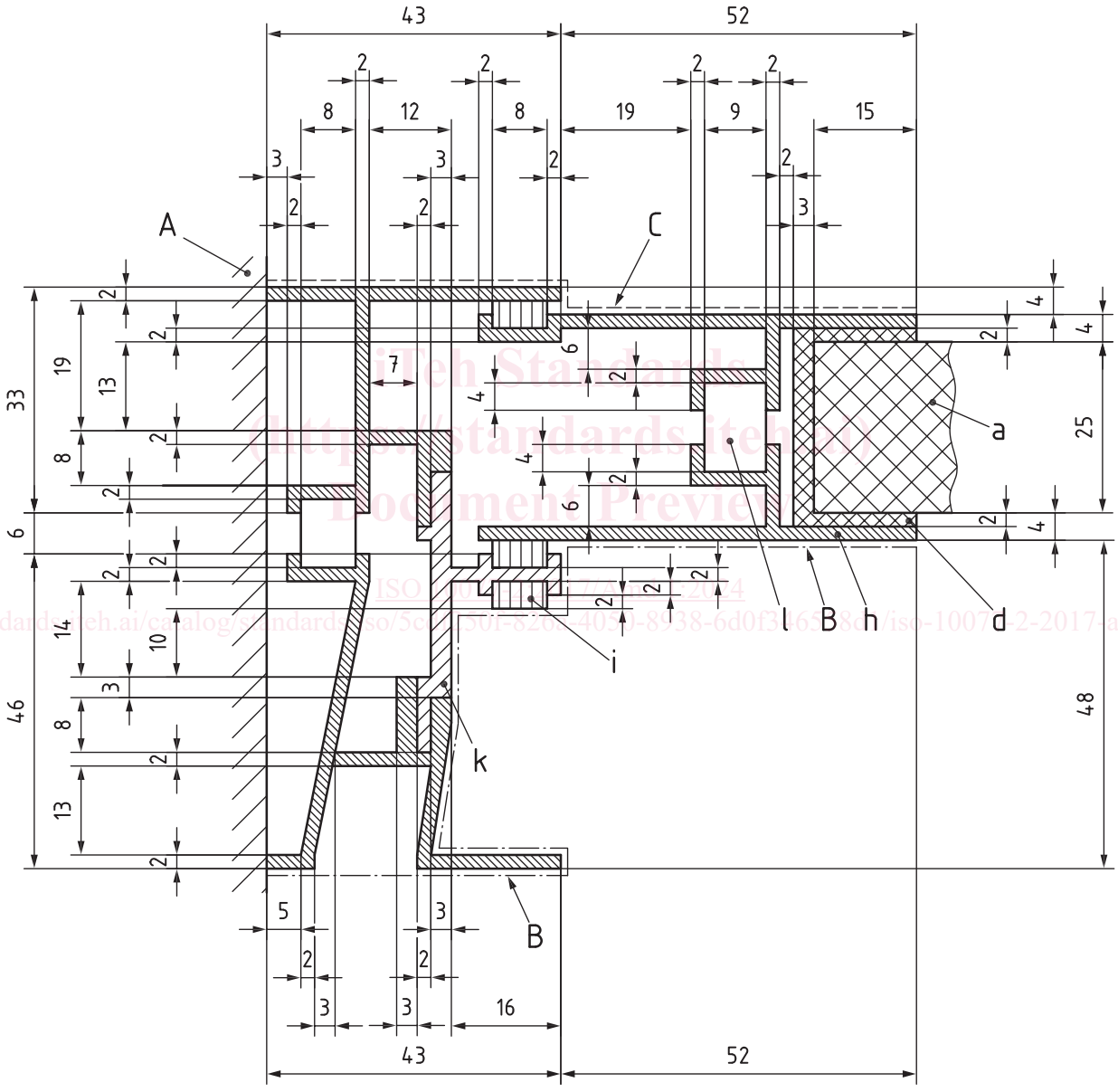
b soft wood
d EPDM
h aluminium

NOTE The projected frame width, b_f, is 89 mm.

Figure H.6 — Roof window frame section and insulation panel

Replace Figure H.7 with the following figure and add the following key:

Dimensions in millimetres



Key

A adiabatic boundary
B external surface resistance
C internal surface resistance
a insulation panel
d EPDM

h aluminium[a]
i pile weather stripping (polyester mohair)
k polyamide
l PU (Polyurethan-Hartschaum)
[a] All surfaces have emissivity 0,9 except for Figure H.2.

NOTE The projected frame width, b_f, is 95 mm.

Figure H.7 — Sliding window frame section and insulation panel

Add the following key to Figure H.8:

Key
A adiabatic boundary
B external surface resistance
C internal surface resistance
a insulation panel
c PVC
d EPDM

Replace Figure H.9 with the following figure and add the following key: