

Summary of U Value Calculation

Undertaken by Nicola Holt, of Capital Windows & Conservatories (NW) Ltd
Reference Number: Alu Door 001

Door, Fully Glazed, Metal Frame
Calculation Date: 2024-02-20

Calculated following the principles of EN ISO 10077-1:2006

Basic Dimensions

Width of Opening: 1000 mm
Height of Opening: 2000 mm

Door Glazing Profile

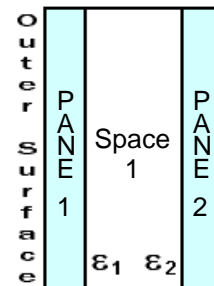
Number of Spaces: 1 (Double Glazing)
Gas Temperature: 283.15 K (10°C)
Normal Emissivity of Internal Glass Surface: 0.89

Space	Width	Gas Type
1	20 mm	10% Air : 90% Argon

Space	e1	e2
1	0.89 (0.84 corr)	0.05 (0.06 corr)

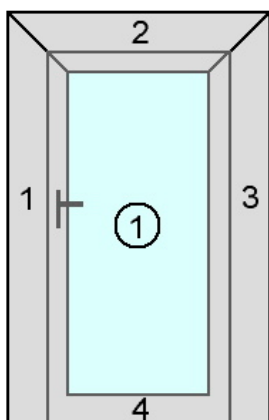
Pane	Thickness
1	4 mm
2	4 mm

Total Thickness of Glazing: 28 mm
External Heat Transfer Coefficient: 25 W/m².K
Internal Heat Transfer Coefficient: 7.7 W/m².K



Configuration of Unit: Frame & Pane Areas

Numbers on each frame edge correspond to the Frame Side in the frame table on the next page, and Circled Numbers refer to the Pane in the panes table.



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Door Frame

Side	L i	L e
1	70 mm	70 mm
2	70 mm	70 mm
3	70 mm	70 mm
4	70 mm	70 mm

Side	A f,i	A f,e	A frame	Int. Frame W	Ext. Frame W	A f,di	A f,de
1	0.135 m ²	0.135 m ²	0.135 m ²	70 mm	70 mm	0.135 m ²	0.135 m ²
2	0.065 m ²	0.065 m ²	0.065 m ²	70 mm	70 mm	0.065 m ²	0.065 m ²
3	0.135 m ²	0.135 m ²	0.135 m ²	70 mm	70 mm	0.135 m ²	0.135 m ²
4	0.065 m ²	0.065 m ²	0.065 m ²	70 mm	70 mm	0.065 m ²	0.065 m ²

$$\sum A_{\text{frame}} : 0.400 \text{ m}^2$$

$$\sum A_{\text{frame}} : U_{\text{frame}} : 0.561 \text{ W/K}$$

Door Panes

The values of U glass have been calculated using BS EN 673:1998.

Pane	Type	A glass	U glass	Perimeter	Spacer	PSI
1	Glass	1.600 m ²	1.219 W/m ² .K	5.440 m	Aluminium Generic	0.110 W/m.K

$$\sum A_{\text{glass}} : 1.600 \text{ m}^2$$

$$\sum A_{\text{glass}} \cdot U_{\text{glass}} : 1.951 \text{ W/K}$$

$$\sum l_{\text{glass}} \cdot \psi_{\text{glass}} : 0.598 \text{ W/K}$$

Total Thermal Conductance of Glazing: 1.54W/m².K

Final U Value for Unit: 1.6 W/m².K