

SPECIFICATION DATABASE



U28FWC - 7/24 - V1.0

Royale
Collection

'u' Value - 2800 Flush Wide Coloured Window

Summary of U Value Calculation

Undertaken by MB Frames PVCu Ltd MB Frames PVCu Ltd, of 43-0011009086

Reference Number: 2800 Flush Casement_Large_Steel

Deceuninck Window: Heritage 2800 flush casement (5.7.7.7.13.13.13.4)

Calculation Date: 2019-01-18

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

Basic Dimensions

Width of Opening: 1230 mm

Height of Opening: 1480 mm

Window Glazing Profile

Number of Spaces: 1 (Double Glazing)

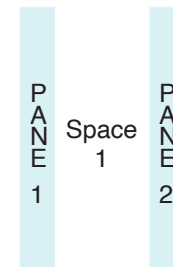
Gas Temperature: 283.15 K (10°C)

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 |



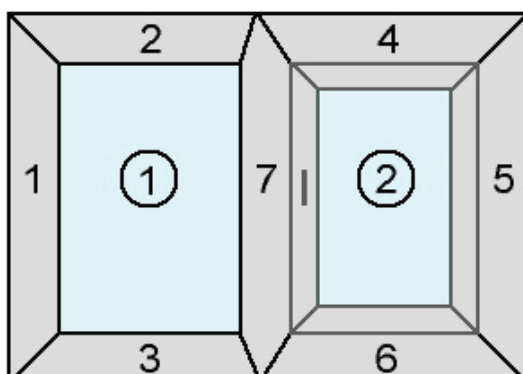
Total Thickness of Glazing: 28 mm

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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This data has been produced by the Oracle U Value Calculator.
The results have not been independently checked or verified by Build Check Ltd /
Build Check Publications Ltd. For verification contact publications@buildcheck.co.uk.
Calculations valid for one month.

Software Version: 2.1

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Calculation Date: 2019-01-18

Window Frame

| Side | A f,i | A f,e | A frame | Int. Frame W | Ext. Frame W | U frame |
|------|----------------------|----------------------|----------------------|--------------|--------------|--------------------------|
| 1 | 0.099 m ² | 0.099 m ² | 0.099 m ² | 70 mm | 70 mm | 1.36 W/m ² .K |
| 2 | 0.039 m ² | 0.039 m ² | 0.039 m ² | 70 mm | 70 mm | 1.36 W/m ² .K |
| 3 | 0.039 m ² | 0.039 m ² | 0.039 m ² | 70 mm | 70 mm | 1.36 W/m ² .K |
| 4 | 0.061 m ² | 0.061 m ² | 0.061 m ² | 119 mm | 119 mm | 1.41 W/m ² .K |
| 5 | 0.162 m ² | 0.162 m ² | 0.162 m ² | 119 mm | 119 mm | 1.41 W/m ² .K |
| 6 | 0.061 m ² | 0.061 m ² | 0.061 m ² | 119 mm | 119 mm | 1.41 W/m ² .K |
| 7 | 0.164 m ² | 0.164 m ² | 0.164 m ² | 119 mm | 119 mm | 1.46 W/m ² .K |

$$\Sigma A_{\text{frame}} : 0.625 \text{ m}^2$$

$$\Sigma A_{\text{frame}} \cdot U_{\text{frame}} : 0.880 \text{ W/K}$$

Window Panes

| Pane | Type | A panel | U panel | Perimeter | Spacer | PSI |
|------|-------|----------------------|---------------------------|-----------|----------------------|-------------|
| 1 | Glass | 0.682 m ² | 1.219 W/m ² .K | 3.698 m | Super Spacer Premium | 0.031 W/m.K |
| 2 | Glass | 0.513 m ² | 1.219 W/m ² .K | 3.310 m | Super Spacer Premium | 0.031 W/m.K |

$$\Sigma A_{\text{pane}} : 1.195 \text{ m}^2$$

$$\Sigma A_{\text{pane}} \cdot U_{\text{pane}} : 1.457 \text{ W/K}$$

$$\Sigma l_{\text{pane}} \cdot \psi_{\text{pane}} : 0.217 \text{ W/K}$$

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

No cross bars and no attached bars: 0 W/m².K

Final U Value for Unit: 1.4 W/m².K

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