

## U-value calculation

by BRE U-value Calculator version 2.03

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### Element type: Window - Plastic frame - Double glazed

Calculation Method: BS EN 673, BS EN ISO 10077-1

### Rapid PVC-U - Eurologik 70 Tilt & Turn

Window height: 1480 mm  
Window width: 1230 mm  
Vertical divider: width of left-hand side (from edge of window to centre of divider): 615 mm  
width of right-hand side (from centre of divider to edge of window): 615 mm  
Angle to horizontal: 90° (vertical window)

#### Glazing

Glazing U-value calculated by method in BS EN 673

Layer	d (mm)	$\lambda$ glass	emiss.1	emiss.2	gas	% fill	R layer	Description	
1	10	1.0					0.130	Rsi	
2	12		0.050	0.890	Argon	90	0.010	Glass	
3	6.4	1.0					0.568	Gas space	
							0.006	Glass	
							<u>0.040</u>	Rse	
	<u>28 mm</u> (total glazing thickness)							<u>0.754</u>	

Glazed area: 1.177 m<sup>2</sup>  
Centre-pane U-value: 1.326 W/m<sup>2</sup>K

Frame	Left side	Divider	Right side	
Frame width:	122	117	75	mm
3 hollow chambers				
Frame area:	0.287	0.173	0.183	m <sup>2</sup>
Frame U-value:	2.000	2.000	2.000	W/m <sup>2</sup> K (from ISO 10077-1)
<u>Frame/glazing</u>				
Glazing perimeter:	2105	2566	2293	mm
Spacer bar:	Aluminium or steel spacer			
Linear $\Psi$ -value:	0.080	0.080	0.080	W/m·K (from ISO 10077-1)

Window area: 1.82 m<sup>2</sup>, Glazed area: 1.18 m<sup>2</sup> (64.7%), Frame area: 0.64 m<sup>2</sup> (35.3%)

U-value 1.870  
**U-value (rounded) 1.9 W/m<sup>2</sup>K**

Calculated by:  
Eurocell PLC