

U-values

Architecture

What a U-value measures, how R-value relates, and the numbers to know.

The U-value is heat lost per square metre per degree of temperature difference, in watts.

$$U = 1 / \text{total } R \cdot \text{units } W/m^2K$$

R total 5.0

typical new wall

U = 0.20

Solid brick wall

uninsulated

U about 2.1

Triple glazing

good unit

U about 0.8

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✗ **Comparing 0.30 and 0.20 as small**

✓ **That is a third less heat lost**

A U-value is a rate of loss, so 0.30 to 0.20 removes a third of it. Improvements at the poor end of the range are worth far more than at the good end.

Educational reference. Required values are set by national building regulations and change; check the current document.