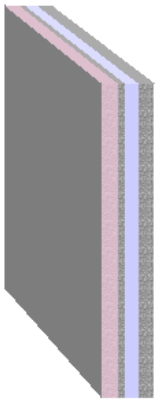
Documentation of the component — 26. September 2011
Thermal transmittance (U-value) according to BS EN ISO 6946 —
Source: **own catalogue**
Component: **New external wall**

OUTSIDE INSIDE



Assignment: External wall

		Manufacturer	Name	Thickness [m], number	Lambda [W/(mK)]	Q	R [m²K/W]
		Rse					0.04
☑	1	WBS	WBS Silicone Render	0.008	0.556	E	0.01
☑	2	WBS	WBS Phenolic Insulation Board (45+)	0.060	0.020	E	3.00
		Fixings	Plastic insulation anchors No./m²:	8/m²	0.500	D	-
		Air gaps	Level 1: dU" = 0.01 W/(m²K)				
☑	3	Own catalogue	Concrete, Medium density 2000	0.025	1.350	E	0.02
☑	4	Own catalogue	Normal cavity - 50 mm, unventilated	0.050	0.278	E	0.18
☑	5	Own catalogue	Concrete, Medium density 2000	0.038	1.350	E	0.03
☑	6	Own catalogue	Gypsum plastering	0.016	0.382	E	0.04
		Rsi					0.13
				0.197			

$R_T = R_{si} + \Sigma R_i + R_{se} = 3.45$ m²K/W

Correction to U-value for	according to	delta U [W/(m²K)]
Mechanical fasteners	BS EN ISO 6946 Annex D	~~0.000~~
Air gaps	BS EN ISO 6946 Annex D	~~0.008~~
Air gaps and fixings corrections need not be applied, as their total effect is less than 3% (Annex D BS 6946:1996).		
		0.000

$U = 1/R_T + \Sigma\Delta U = 0.29$ W/(m²K)

Q .. The physical values of the building materials has been graded by their level of quality. These 5 levels are the following
A .. A: Data is entered and validated by the manufacturer or supplier. Data is continuously tested by 3rd party.
B .. B: Data is entered and validated by the manufacturer or supplier. Data is certified by 3rd party
C .. C: Data is entered and validated by the manufacturer or supplier.
D .. D: Information is entered by BuildDesk without special agreement with the manufacturer, supplier or others.
E .. E: Information is entered by the user of the BuildDesk software without special agreement with the manufacturer, supplier or others.

U_{max} = **0.35** W/(m²K) U = **0.29** W/(m²K) R_T = **3.45** m²K/W

Source of Umax value: England, Wales: Approved Document L1A (2006), Table 2 - New Build Dwellings