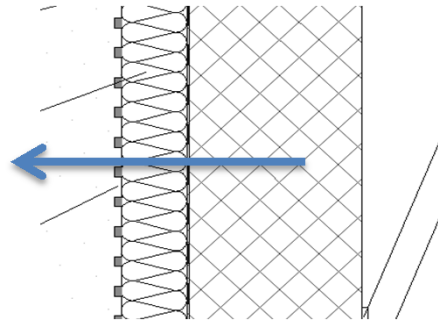


**BASEMENT SLAB****Section**

Concrete 400mm

Waterproof membrane 15mm

Insulation 150mm



Construction	d (m)	$\lambda$ (W/mK)	$R=d/\lambda$ (m <sup>2</sup> K/W)	DS418
<b>U1 up to 2m, below soil</b>				
Rsi-Int. Resistance			0,1700	p20
Concrete	0,4	1,7	0,2353	p48
Waterproof membra	0,015	0,23	0,0652	
Insulation	0,2	0,04	5,0000	
Rj Soil Resistance	$0,2 + 0,3 \cdot h = 0,2 + 0,3 \cdot 3,66$		1,2980	p31
$\Sigma R=1/U'$			6,7685	
$U'=1/\Sigma R$			0,1477	
$\Delta U = 0, U = U' + \Delta U = 0,1812 + 0 = 0,1812 \text{ W/m}^2\text{K}$				

Construction	d (m)	$\lambda$ (W/mK)	$R=d/\lambda$ (m <sup>2</sup> K/W)	DS418
<b>U2 more than 2m, below soil</b>				
Rsi-Int. Resistance			0,1700	p20
Concrete	0,4	1,7	0,2353	p48
Waterproof membra	0,015	0,23	0,0652	
Insulation	0,2	0,04	5,0000	
Rj Soil Resistance			2,0000	p31
$\Sigma R=1/U'$			7,4705	
$U'=1/\Sigma R$			0,1339	
$\Delta U = 0, U = U' + \Delta U = 0,1608 + 0 = 0,1608 \text{ W/m}^2\text{K}$				

**AREAS**

m/l BASEMENT WALL 94,9

<b>A1</b>	m/l basement wall x h = 94,9 x 2	<b>189,8000 m<sup>2</sup></b>
<b>A2</b>	m/l basement wall x h = 94,9 x 1,66	<b>157,5340 m<sup>2</sup></b>

**U-VALUES**

<b>U1</b>	<b>0,1477 W/m<sup>2</sup>k</b>
<b>U2</b>	<b>0,1339 W/m<sup>2</sup>k</b>

$$U = (U1 \times A1 + U2 \times A2) / (A1 + A2)$$

$$U = (0,1812 \times 189,8 + 0,1608 \times 157,53) \quad 0,141440984$$