

Tablica toplinske izolacije – stropne konstrukcije ravnih i kosih krovova
 $U_{dop.} = 0.40 \text{ [W/m}^2\text{K]} - \text{najveća dopuštena vrijednost koeficijenta prolaska topline}$
Proračun koeficijenta prolaska topline $U \text{ [W/m}^2\text{K]}$

Sloj	80 % površine			20 % površine		
	debljina [cm]	koeficijent topl. vodlj. $\lambda \text{ [W/mK]}$	d/λ [m ² K/W]	debljina [cm]	koeficijent topl. vodlj. $\lambda \text{ [W/mK]}$	d/λ [m ² K/W]
POLISTIREN 0,02 t/m ³	5,0	0,04	1,25	5,0	0,04	1,25
ARMIRANI BETON 2,4 t/m ³				14,5	2,33	0,062
POLISTIREN 0,02 t/m ³	15,0	0,04	3,75			
KERAMZIT BETON 1.3 t/m ³	3,0	0,5	0,06	3,5	0,5	0,07

$$R = \Sigma d/\lambda = 5.06 \text{ [m}^2\text{K/W]}$$

$$R_i = 1/\alpha_i = 0.13 \text{ [m}^2\text{K/W]}$$

$$R_e = 1/\alpha_e = 0.04 \text{ [m}^2\text{K/W]}$$

$$R = \Sigma d/\lambda = 1.382 \text{ [m}^2\text{K/W]}$$

$$R_i = 1/\alpha_i = 0.13 \text{ [m}^2\text{K/W]}$$

$$R_e = 1/\alpha_e = 0.04 \text{ [m}^2\text{K/W]}$$

$$R_k = 5.23 \text{ [m}^2\text{K/W]} - \text{koef. toplinskog otpora}$$

$$R_k = 1.552 \text{ [m}^2\text{K/W]}$$

$$U_1 = 1/5.23 \text{ [m}^2\text{K/W]} = 0.191 \text{ [W/m}^2\text{K]}$$

$$U_2 = 1/1.552 \text{ [m}^2\text{K/W]} = 0.644 \text{ [W/m}^2\text{K]}$$

$$U = 80 \% U_1 + 20 \% U_2 \rightarrow 0.80 \times 0.191 \text{ [W/m}^2\text{K]} + 0.20 \times 0.644 \text{ [W/m}^2\text{K]} = \mathbf{0.28 < 0.40 \text{ [W/m}^2\text{K]}}$$

Proizvođač: