

2.1. FOR WALL THICKNESS = 200 MM



**AAC WALL 200 mm**

$$R \text{ value (AAC Wall)} = \frac{\text{Thickness (m)}}{TC} = \frac{0.20}{0.11} = 1.818 \text{ M}^2.\text{K/W}$$

$$R_{si} = 0.13 \text{ M}^2.\text{K/W}$$

$$R_{se} = 0.04 \text{ M}^2.\text{K/W}$$

$$\text{Thus, the summation of (R value - Total)} = R_{\text{AAC WALL}} + R_{si} + R_{se} = 1.818 + 0.13 + 0.04 \\ = 1.988 \text{ M}^2.\text{K/W}$$

$$\text{Therefore U - Value} = \frac{1}{R_t} = \frac{1}{1.988} = 0.50 \text{ W/M}^2.\text{K}$$



2.2. FOR WALL THICKNESS = 250 MM



**AAC WALL 250 mm**

$$R \text{ value (AAC Wall)} = \frac{\text{Thickness (m)}}{TC} = \frac{0.25}{0.11} = 2.27 \text{ M}^2.\text{K/W}$$

$$R_{si} = 0.13 \text{ M}^2.\text{K/W}$$

$$R_{se} = 0.04 \text{ M}^2.\text{K/W}$$

$$\text{Thus, the summation of (R value - Total)} = R_{\text{AAC WALL}} + R_{si} + R_{se} = 2.27 + 0.13 + 0.04 = 2.44 \text{ M}^2.\text{K/W}$$

$$\text{Therefore U - Value} = \frac{1}{R_t} = \frac{1}{2.44} = 0.409 \text{ W/M}^2.\text{K}$$



2.3. FOR WALL THICKNESS = 300 MM



AAC WALL 300 mm

$$R \text{ value (AAC Wall)} = \frac{\text{Thickness (m)}}{TC} = \frac{0.30}{0.11} = 2.72 \text{ M}^2.\text{K/W}$$

$$R_{si} = 0.13 \text{ M}^2.\text{K/W}$$

$$R_{se} = 0.04 \text{ M}^2.\text{K/W}$$

Thus, the summation of (R value – Total) =  $R_{\text{AAC WALL}} + R_{si} + R_{se} = 2.72 + 0.13 + 0.04 = 2.89 \text{ M}^2.\text{K/W}$

$$\text{Therefore U - Value} = \frac{1}{R_t} = \frac{1}{2.89} = 0.346 \text{ W/M}^2.\text{K}$$



2.4. FOR WALL THICKNESS = 350 MM



AAC WALL 350 mm

$$R \text{ value (AAC Wall)} = \frac{\text{Thickness (m)}}{TC} = \frac{0.35}{0.11} = 3.18 \text{ M}^2.\text{K/W}$$

$$R_{si} = 0.13 \text{ M}^2.\text{K/W}$$

$$R_{se} = 0.04 \text{ M}^2.\text{K/W}$$

$$\text{Thus, the summation of (R value - Total)} = R_{\text{AAC WALL}} + R_{si} + R_{se} = 3.18 + 0.13 + 0.04 = 3.35 \text{ M}^2.\text{K/W}$$

$$\text{Therefore U - Value} = \frac{1}{R_t} = \frac{1}{3.35} = 0.298 \text{ W/M}^2.\text{K}$$



2.5. FOR WALL THICKNESS = 400 MM



**AAC WALL 400 mm**

$$R \text{ value (AAC Wall)} = \frac{\text{Thickness (m)}}{TC} = \frac{0.40}{0.11} = 3.63 \text{ M}^2.\text{K/W}$$

$$R_{si} = 0.13 \text{ M}^2.\text{K/W}$$

$$R_{se} = 0.04 \text{ M}^2.\text{K/W}$$

$$\text{Thus, the summation of (R value - Total)} = R_{\text{AAC WALL}} + R_{si} + R_{se} = 3.63 + 0.13 + 0.04 = 3.80 \text{ M}^2.\text{K/W}$$

$$\text{Therefore U - Value} = \frac{1}{R_t} = \frac{1}{3.80} = 0.26 \text{ W/M}^2.\text{K}$$

