

есеп 4.

Бер:

$$h_1 = 30 \text{ мм}$$

$$h_2 = 60 \text{ мм}$$

$$\rho_k = 2700 \text{ кг/м}^3$$

$$\rho_m = 900 \text{ кг/м}^3$$

$$h = ?$$

Шығарылуы:

$$\rho_k = (2h_1 + h_2)$$

$$h_1 = \frac{2700(0,006 - 0,003)}{3 \cdot 900}$$

$$h_2 = (0,8 \cdot 0,25 - 2 \cdot 0,05) \text{ м} = 10 \text{ см}$$

$$h = 15 \text{ см}$$

$$ЖК: 15 \text{ см}$$

есеп 1.

$$R_{AB_1} = 2R_0 \quad R_{AB} = \frac{2}{3} R_0$$

$$I = \frac{U}{R_x + R_{AB}} \quad (P = I^2 R_{AB})$$

$$P = \frac{U^2}{R_x + R_{AB}} \quad P = I^2 R_{AB}$$

$$\frac{P = 2R_0}{(R_x + 2R_0)} = \frac{\frac{2}{3} R_0}{(R_x + \frac{2}{3} R_0)^2}$$

$$R_x + 2R_0 = \sqrt{3} (R_x + \frac{2}{3}) \quad R_x = \frac{2R_0}{\sqrt{3}} = 230 \text{ Ом}$$

есеп 3.

Бер:

$$R = 200 \text{ Ом}$$

$$\lambda = 80\%$$

$$t = 25 \text{ мин} = 1500 \text{ с}$$

$$u = 220 \text{ В}$$

$$t = 20^\circ \text{C}$$

$$V = 0,6 \text{ л} = 0,6 \cdot 10^{-3} \text{ м}^3$$

$$\rho = 1000 \text{ кг/м}^3$$

$$C = 4200 \text{ Дж/кг}^\circ \text{C}$$

$$m_1 = ?$$

Форм:

$$\lambda = \frac{Q_{\text{поп}}}{Q_{\text{тепл}}} \cdot 100\%$$

$$m = \rho V = 1000 \cdot 0,6 \cdot 10^{-3} = 600 \cdot 10^{-3} = 0,6 \text{ кг}$$

$$Q_k = cm(t_2 - t_1) + r m_1$$

$$Q_{\text{тепл}} = \frac{cm(t_2 - t_1) + r m_1}{\frac{u^2 t}{R}} \cdot 100\%$$

$$m_1 = \frac{\lambda \frac{u^2 t}{R} - cm(t_2 - t_1)}{r} = \frac{80\% \cdot 200\% \cdot 1500}{100\%}$$

$$= \frac{4200 \cdot 0,6 \cdot 80}{2,3 \cdot 10^6}$$

$$0,16 \text{ кг}$$