

Remarks: See §4.9, pages 203 till 208

Answer:

$$k = 25 \text{ mm}$$

Explanation:

$$A = 10,8 \times 10^3 \text{ mm}^2$$

$$I_{yy} = I_{zz} = 16,2 \times 10^6 \text{ mm}^4$$

$$W_y = W_z = \frac{I}{\frac{1}{2}h} = \frac{16,2 \times 10^6 \text{ mm}^4}{60 \text{ mm}} = 270 \times 10^3 \text{ mm}^3$$

$$k = \frac{W}{A} = \frac{270 \times 10^3 \text{ mm}^3}{10,8 \times 10^3 \text{ mm}^2} = 25 \text{ mm}$$

