

$$\sigma_p = 8,466 \cdot 10^{-3} \cdot \sqrt{\left(\frac{0,01}{40,52}\right)^2 + \left(\frac{2 \cdot 9,77 \cdot 10^{-3}}{16,37}\right)^2 + \left(\frac{2,84 \cdot 10^{-3}}{22,91}\right)^2}$$

$$\sigma_p = 8,466 \cdot 10^{-3} \cdot \sqrt{1,506 \cdot 10^{-6}}$$

$$\sigma_p = 8,466 \cdot 10^{-3} \cdot 1,227 \cdot 10^{-3}$$

$$\sigma_p \approx 1,038 \cdot 10^{-8} \text{ g/mm}^3 //$$

→ Notação final para a Densidade

$$\rho = \bar{\rho} \pm \sigma_p$$

$$\rho = \bar{\rho} + \sigma_p$$

$$\rho = 0,00846 + 1,038 \cdot 10^{-8}$$

$$\rho = 8,466 \cdot 10^{-3} = 0,00846 \text{ g/mm}^3 //$$

$$(8,47 \pm 0,06) \cdot 10^{-3}$$

$$\rho = \bar{\rho} - \sigma_p$$

$$\rho = 0,00846 - 1,038 \cdot 10^{-8}$$

$$\rho = 8,459 \cdot 10^{-3} \approx 0,00846 \text{ g/mm}^3 //$$

$$\rho = 0,00846 \pm 1,038 \cdot 10^{-8} //$$

→ Erro Relativo

$$E\% = \frac{x_m - x_v}{x_v} \cdot 100$$

(Exatidão)

$$E\% = \frac{8,466 - 8,40}{8,40} \cdot 100$$

$$E\% = 0,785\%$$

→ Incerteza Experimental Relativa

(Precisão)

$$E_{exp} = \frac{\sigma_{\bar{G}}}{\bar{G}} \cdot 100$$

$$E_{exp} = \frac{1,038 \cdot 10^{-8}}{8,466 \cdot 10^{-3}} \cdot 100$$

$$E_{exp} = 0,001226\%$$