

(d) The strain on the composite is the same as the strain on each of the matrix and fiber phases; applying Equation 6.5 to both matrix and fiber phases leads to

$$\varepsilon_m = \frac{\sigma_m}{E_m} = \frac{4.4 \text{ MPa}}{2.4 \times 10^3 \text{ MPa}} = 1.83 \times 10^{-3}$$

$$\varepsilon_f = \frac{\sigma_f}{E_f} = \frac{242 \text{ MPa}}{131 \times 10^3 \text{ MPa}} = 1.84 \times 10^{-3}$$