

Density of Martini Simulation

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Givens:

$$P = 1\text{atm}$$

$$T = 290\text{K}$$

$$\rho_{\text{water}}(1\text{atm}, 290\text{K}) = 55.5 \frac{\text{mol}}{\text{liter}}$$

$$1 \text{ Bead} = 4 \text{ Water Molecules}$$

Calculation:

$$\frac{\text{beads}}{\text{nm}^3} = 55.5 \frac{\text{mol}}{\text{liter}} \cdot 6.022 \cdot 10^{23} \frac{\text{Molecules}}{\text{mol}} \cdot \frac{1 \text{ Bead}}{4 \text{ Molecules}} \frac{10^{-22} \text{ Liters}}{1 \text{ nm}^3} = \boxed{8.36 \text{ beads/nm}^3}$$