

Due to Archimedes' principle:

If block of wood floats in water with 4/5 of its volume, the density of wood is 4/5 of water's density:

$$\rho(\text{wood}) = \frac{4}{5} \rho(\text{water}) = 800 \text{Kg/m}^3$$

If block of wood just floats in other liquid, density of wood is equal to density of liquid:

$$\rho(\text{wood}) = \rho(\text{liquid}) = 800 \text{Kg/m}^3$$

Answer:

The density of liquid is: 800Kg/m^3