

The surface intention phenomenon is important in case of floating of a steel wiper in water only.

As consequence of Archimedes' principle the steel wiper should sink in water as the density of steel is above water density, therefore floats it can only from surface tension forces.

In all other cases the total density is less than density of water (air in case of the floating of a balloon in air) and surface tension force of significant influence does not render.

Condition of floats: $\rho < \text{or} = \rho(\text{water or air})$, where $\rho = \frac{m}{V}$