## Angle of Contact.

Angle of contact between a liquid and a solid is defined as the angle enclosed between the tangents to the liquid surface and the solid surface inside the liquid, both the tangents being drawn at the point of contact of the liquid with the solid.

| $\theta<90$ o | $\theta=90$ o | $\theta>90$ o |
| :---: | :---: | :---: |
| $F_{a}>\frac{F_{c}}{\sqrt{2}}$ | $F_{a}=\frac{F_{c}}{\sqrt{2}}$ | $F_{a}<\frac{F_{c}}{\sqrt{2}}$ |
| Concave meniscus. | Plane meniscus. | Convex meniscus. |
| Liquid wets the solid surface | Liquid does not wet the solid surface. | Liquid does not wet the solid surface. |

Important points
(i) Its value lies between 00 and 180 o
$\theta=0^{\circ}$ For pure water and glass, $\theta=8^{\circ}$ for tap water and glass, $\theta=90^{\circ}$ for water and silver
$\theta=138^{\circ}$ For mercury and glass, $\theta=160^{\circ}$ for water and chromium
(ii) It is particular for a given pair of liquid and solid. Thus the angle of contact changes with the pair of solid and liquid.
(iii) It does not depends upon the inclination of the solid in the liquid.
(iv) On increasing the temperature, angle of contact decreases.
(v) Soluble impurities increases the angle of contact.
(vi) Partially soluble impurities decreases the angle of contact.

