

Surface Tension.

What is surface tension?

Surface tension is due to an attraction between the molecules in water, which cause its surface to act in an elastic manner.

Surface tension therefore tries to minimise the surface area, resulting in liquids forming spherical droplets.

Surface tension is what permits water insects to walk across the surface of water without sinking and what enables a needle to float. Of course, the critical feature here is the amount of force per unit area -- put a needle into water end-on instead of sideways and the needle will immediately sink.

Surface tension causes capillary action for example draw a liquid upwards against the force of gravity

The same effect is what causes porous materials to soak up liquids.

- Q.1 How will surface tension affect a building or structure?
- Q.2 How / why does temperature affect surface tension?
- Q.3 How can we stop surface tension therefore stopping capillary action?
- Q.4 Why are dense materials more resistant to capillary action?
- Q.5 How does 'breathable' roofing felt work?
- Q.6 What is a vapour barrier?