

Mechanical properties of materials



Strength

- ability of a material to return to its original form after a load has been applied and removed



Hardness

- ability to resist bending



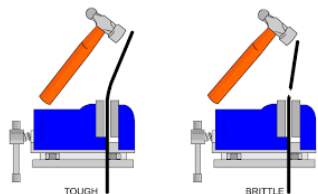
Plasticity

- materials which deform permanently when small forces are applied show plasticity



Elasticity

- ability to be drawn out into a thin wire or threads. It is a measure of how easily a material can be worked



Toughness

and Brittleness

- a material that absorbs impact (sudden forces or shocks such as hammer blows) well is tough - this is the opposite to brittleness; material that has a tendency to break easily or suddenly without any extension first



Malleability

- ability to plastically deform and shape a material by forging, rolling or by any other method of applying pressure



Ductility

- general ability of a material to withstand an applied force



Stiffness

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