

STRENGTH OF MATERIAL LABORATORY

The properties which can be determined and their related tests are as under :

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| 1) | Ductility / Brittleness | -Tension Test |
| 2) | Modulus of Elasticity | -Tension Test |
| 3) | Hardness | -Brinell Hardness Test |
| 4) | Toughness | -Izod Impact Test |
| 5) | Shear stress due to torsional moment | -Torsion Test |
| 6) | Shear Modulus | -Torsion Test |
| 7) | Fatigue Strength / Endurance Limit | -Fatigue Test |
| 8) | Modulus of rupture under transverse loading | -Transverse Test on beam |
| 9) | Compressive Stress (Long / Short Column) | - Compression Test |

To carry out above mentioned tests and to establish related properties, various machines and their technical specifications are as under

- 1 ELECTRO-MECHANICAL UNIVERSAL TESTING MACHINE (1000 kN)
(Tension, Compression, Shear Test-double block type, wire rope, Transverse Test)
- 2 BRINELL HARDNESS TESTING MACHINE
- 3 IMPACT TESTING MACHINE
- 4 TORSION TESTING MACHINE (50 KG-M)
- 5 FATIGUE TESTING MACHINE (Simply Supported Type – 200 kg-m)