



COMPOSITES:

- A Composite is a combined material formed by the assembly of two or more components, such as fillers or reinforcing agents and a compatible matrix binder in order to obtain specific characteristic properties
- Two or more distinct components which combine to form a new class of material suitable for structural application are referred as composite materials.
- The components of a composite do not dissolve or merge completely into each other but act together, while retaining their individual identities.
- The new material may be preferred for many reasons. Common examples include materials which are stronger, lighter, or less expensive when compared to traditional materials..

Characteristics (or) properties of Composites:

- They possess higher specific strength and lower specific gravity.
- They possess lower electrical conductivity and thermal expansion.
- They possess better creep, fatigue ,strength, corrosion and oxidation resistances.
- They maintain very good strength, even upto high strength.

Typical engineering composite materials include:

- Reinforced concrete and masonry
- Composite wood such as plywood
- Reinforced plastics, such as fiber-reinforced polymer or fiberglass
- Ceramic matrix composites (composite ceramic and metal matrices)
- Metal matrix composites