

COMPOSITE MATERIALS

Key Revision Facts: GCSE Technology

Composite materials are produced by combining two or more different materials to create an enhanced material.

Examples of Composite Materials are:

Glass Reinforced Plastic (GRP)

It is also called fiberglass is made from strands of glass called fibers. The fibers may be randomly arranged, flattened into a sheet, or woven into a fabric and mixed with a Resin.

Carbon Fibre Reinforced Plastic (CRP)

Carbon fibre Reinforced Plastic is an extremely strong and light fiber-reinforced plastic that contains carbon fibers.

Concrete

Concrete is the most common artificial composite material of all and typically consists of loose stones (aggregate) held with cement matrix.

Medium Density Fibreboard (MDF)

MDF is made from wood fibers and glue.

The fibers in a composite material provide virtually all of the composite load-carrying characteristics, i.e., strength and stiffness. The fibers within the composite form bundles even if several fibers break, the load is redistributed to other fibers, which avoids a catastrophic failure. The matrix binds fibers together. Its purpose is to transfer the load to and between fibers and protect the fibers from hostile environments and handling.

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VERSION INFORMATION

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