

A mechanical engineer uses different materials to build machinery or tools. A specific knowledge of materials is required, concerning qualities, properties, costs and general characteristics. When a machine or a tool is made, the most suitable material must be chosen by considering its properties, which can be classified as mechanical, thermal, electrical and chemical. Composite materials are made up of two or more materials combined to improve their mechanical properties. Concrete is reinforced with steel and is used in building engineering. The main types of materials used in mechanical engineering are metals, ceramics and composite materials. Bronze (formed by mixing copper and tin) and other aluminium alloys which are used in the aircraft industry. PVC or polyvinyl chloride is a type of plastic used to insulate wires and cables.