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Metallic alloys

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Metallic alloys are consisted of two or more elements mixed together in a given composition, and where at least one of which is a metal.

Generally, the alloys are formed by the fusion of the constituent elements followed by the solidification of the liquid solution obtained after homogenization.

The resulting mixtures have different properties, generally more interesting than those of the corresponding constituents allowing them to be used in a wider range of applications. That's why alloys can have many advantages over their pure constituents whether for mechanical characteristics (like hardness, strength, ductility, malleability, plasticity, elasticity, toughness, corrosion resistance, etc) or physical properties (like Surface tension, density, viscosity, friccohesity, Gibbs free energy and molar volume, etc) (10.1016/j.surfin.2021.101444, 10.1016/j.surfin.2020.100643, 10.1080/14786435.2019.1704090). Among metal alloys we can cite the steel (iron-carbon); brass (copper-zinc); bronze (copper-tin), etc.