

Paint :-

Paint is a liquid, liquefiable or mastic composition which after application to a substrate in a thin layer is converted to an opaque solid film.

Paint is mechanical dispersion mixture of one or more pigment in a vehicle. The vehicle is a liquid, consisting of non-volatile, film-forming material, drying oil and a highly volatile solvent, thinner. When a paint is applied

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to a metal surface (usually by brushing or spraying), the thinner evaporates; while the drying oil slowly oxidises forming a dry pigmented film.

Requisites of a good paint:

- It should possess high covering power.
- Its film should not get cracked on drying.
- Its film should be stable.
- Its film should be glossy (i.e. having shine and luster)
- It should possess high adhesion capacity to the material over which it is intended to be used.

Types of Paints:-

Varnishes:-

It is homogeneous colloidal dispersion - solution of natural or synthetic resin in oil or thinner or both. It is used as a protective and/or decorative coating of suitable surface and dries by evaporation, oxidation and polymerization of its constituents, leaving behind a hard transparent, glossy, lustrous and durable film.

Lacquers:-

It is a colloidal dispersion of solution of a cellulose derivative, resin and plasticizer in solvent and diluents. It dries in air principally by evaporation of solvents, yielding a transparent, hard and water-proof film.

Special Paints:-

Luminescent Paints:

It contains luminophor pigments, i.e., which fluoresce under the influence of UV light. Such pigments absorb UV (or other short wavelength radiations) and emit radiations in the visible region of the spectrum.

Fire-retardant paint:

It contains binders (or other component) which break down at elevated temperatures, producing non-inflammable gases like CO_2 , NH_3 etc, which serve to dilute the inflammable gases, produced by the breakdown of the other components of paint.

Cellulose Paint:-

It is made from nitro-cellulose and celluloids. It dries quickly and becomes hard, after addition of thinner. Paint is non-inflammable, glossy, durable.

but shrinks after drying. This paint is used in aero plane and motor car industry.

Antifouling paints

These are used in marine constructions. They specially contain antifouling agents like mercuric oxide, cuprous oxide, pentachloro phenyl etc which retard the fouling of ships, tyres, etc. by marine worms, fungi etc and this helps in controlling their corrosion.

Distempers

These are nothing but water paints. The ingredients of distemper are whitening or chalk powder; glue or casein (the binder); coloring pigment; and water (the solvent or thinner).