

## Painttechnical terminology

# zandleven coatings

#### Air Drying Paint

Paints which dry by absorption of atmospheric oxygen, the reaction being catalysed by metallic driers e.g. Alkyd paints.

#### Airless Spraying

Method of application which uses hydraulic pressure to atomise the paint. Airless spraying is a very fast and efficient method of application.

#### Alkyc

A synthetic resin made by reacting naturally occurring drying oils and other chemicals. Alkyds can be modified to meet varying requirements on speed of drying, adhesion, flexibility, etc.

### **Anti-Corrosive Paint**

A paint formulated to prevent corrosion of steel substrates

#### Base

Part of a multi-component paint (normally 2 component)-e.g. The epoxy component of a 2 pack epoxy-polyamide coating. Base normally is the larger volume of the two components.

#### Binder

The constituent of the paint which serves to bind together the various constituents as well as securing adhesion to the surface.

#### **Blast Cleaning**

Use of abrasive materials such as garnet ,steel grit or shot propelled by compressed air to remove mill scale,rust or old paint from steel. This is the most effective form of surface preparation.

#### Blistering

Localised delamination of a paint film in the form of blisters from the underlying surface.

#### Brushability

The ease with which a coating can be uniformly applied to a surface using a paint brush.

#### Bloomina:

The formation of a thin film on top of a glossy paint film thereby reducing the gloss and dulling the colour.

#### Chalking:

The result of photochemical breakdown of the surface layer of binder with consequent release of pigment.

#### Cissino

The partial creeping back or contraction of the wet film into craters which causes small areas of substrate to become visible.

#### Contrast Ratio

The hiding power of a paint film. Expressed as a ratio of coverage over white against coverage when applied over black.

## Conventional Paint

They are single pack and react usually with atmospheric oxygen when drying and curing. Synthetic resins such as alkyd come into this category

#### Corrosion

A process by which metal is corroded by chemical or electro- chemical influences.

#### <u>Coverage</u>

The spreading rate of a coating.

#### Crocodiling

The formation of wide criss-cross cracks in a paint film similar to a crocodile hide.

## Curing Agents

Normally the additive component of a two pack coating.

#### Dry Spray

A rough, powdery, non-coherent film produced when a spray- applied atomised coating dried before reaching the surface.



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#### **Epoxy**

A resin based on polymerised Bisphenol A containing epoxide groups.

#### **Feathering**

The abrasive smoothing of the firm edge of a film of paint to ensure that patch " repairs " etc.adhere well to the existing coating.

#### Filiform Corrosion

A type of corrosion proceeding under a coat of paint, varnish or related product, in the form of threads, and generally starts from bare edges and local damage in the paint coat.

#### Film Thickness

The thickness of a continuous layer of paint applied to a substrate.

#### Flash Point

The lowest temperature at which the vapour of a flammable material (solvent) will be ignited by a spark or open flame.

#### Flotation

Separation of one pigment which appears to 'float' to the surface which results in streaks in the surface of the film.

#### Hardener

A cross-linking agent used to cure a resin or paint system.

#### **High Build Paints**

Paints which can be applied at high film thickness, normally over 100 microns dry film thickness.

#### **Holidays**

Defects characterised by an applied paint having areas of insufficient thickness even to the point where parts of the surface may remain uncoated.

#### Lacquer

A fast-drying clear coating that dries only by the evaporation of solvent.

#### Mixing Ratio

The ratio in which components in multi pack paints must be mixed prior to application.

#### Mudcracking

Visible cracking in thick films of paint caused by shrinkage tension during drying, especially observed with zinc silicates.

## Orange Peel

The dimpled appearance of a sprayed film caused by its failure to flow out to a level surface.

#### Overspray

Sprayed paint which misses the surface to be coated.

#### Peeling

Loss of adhesion resulting in detachment and curling of the paint film from either previous coatings or the substrate.

#### **Pickling**

A treatment for the removal of surface contaminants from steel by immersion in an acid solution.

## <u>Pigments</u>

Powders which give the paint its required anticorrosive or coloured properties.

#### <u>Pinholes</u>

Small holes in through a dry film which form during application and drying of paint.

## <u>Polyurethane</u>

A synthetic resin containing hydroxide groups cured with an isocyanate hardener (though single pack moisture-cured polyurethanes are available). When an aliphatic isocyanate is used good gloss and colour retention result.

#### Pot-Life

The period of time after the mixing of reactive components of a multi- component paint system, during which the mixed paint can be used without detriment to it's application properties or ultimate performance.

#### Primer

Paint intended for protection of metals against corrosion or for preparing a surface for subsequent topcoats.

#### Resir

That constituent of the paint which serves to bind together the various constituents as well as securing adhesion to the surface.



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Paint film defects in the form of sagging paint in narrow ribbons flowing downwards on vertical surfaces, usually caused by applying the coating above the recommended film thickness or overthinning.

Excessive flow of paint on vertical surfaces causing imperfections with thick lower edges in the paint film, not as excessive as runs.

#### Sealer

Paint used to seal the substrate or previous coats and prevent interaction between subsequent coats applied.

Rust preventing paint, for short term exposure, to be applied to abrasive shot blasted steel. Intended to protect the blast cleaned surface against corrosion during the construction period only.

Resins based on polymers containing silicon, carbon and hydrogen.

The formation of a tough, skin-like covering on liquid paints and varnishes when exposed to oxygen.

#### Spreading Rate

The coverage of a material normally expressed as m2/litre.

The surface to which a coat of paint is applied.

#### **Thinner**

Any volatile liquid used for reducing the viscosity of coatings; may consist of a simple solvent, a diluent, or a mixture of solvents and diluents.

#### Thixotropic Paints

Paints that have a semi-solid or gel consistency when undisturbed in the tin, but flow readily when stirred or shaken or when under the brush or roller. Thixotropic paints permit the application of thick coats without the risk of sagging.

#### Tie-coat

A coat of paint applied to a previous coat to improve the adhesion of subsequent coats or to prevent other surface defects e.g. bubbling of a subsequent coating.

#### Touch-Dry

The stage during drying when the coating no longer feels sticky when lightly touched.

Paints based on binders which cure by the chemical reaction between two components.

#### Volume Solids

Percentage of the total volume of the paint made up of non-volatiles.

#### Zinc-Phosphate

A phosphate pigment with corrosion inhibiting properties.

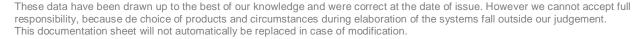
## Zinc-Rich Paints

Paints containing large proportions of metallic zinc in the dry film, giving extremely efficient anticorrosive properties due to the cathodic protection effect of the zinc.

#### Zinc Silicate Paint

Zinc paints based on either a water soluble or solvent based silicate binder giving very good protection against corrosion







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