




Surface Preparation

For Concrete/Plasters/Timber/Metal Surfaces





Surface Preparation




Surface preparation is the process of making the substrate fit for receiving paint

- ◇ Specifying the correct paint system is critical to the success of any paint system and its durability
- ◇ The substrate and specified paint system dictate the method of surface preparation to be employed





Why do we need surface preparation?

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- A cluster of hexagonal icons in the top-left corner. The largest hexagon is light blue and contains a white lightbulb icon. To its left is a smaller hexagon with a white smartphone icon. Above the lightbulb hexagon is a dark blue hexagon with a white thumbs-up icon. Below the lightbulb hexagon is a small dark blue hexagon. A magnifying glass icon is positioned to the left of the list items.
- ◆ To ensure good adhesion and durability
 - ◆ To make the substrate clean (from all impurities and contaminations), sound and dry
 - ◆ To create correct surface profile

Lack of surface preparation causes major failure of coating



Cement Plaster/Render



Surface preparation

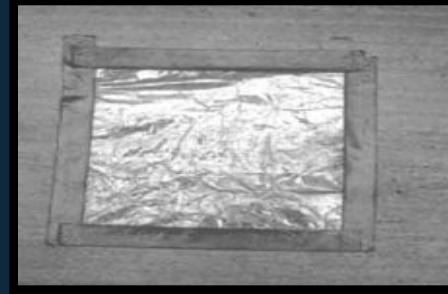
- ◆ Normal sanding with sand paper, sanding machine or carborandum stone
- ◆ Use wire brush if required
- ◆ Or Water jetting bridges
- ◆ Remove the accumulated dust with a dry cloth or compressed air
- ◆ Use a penetrating sealer when the plaster is weak

Features

- Curing period – 28 days
- Normally with smooth surface
- Allowable moisture Content
 - 16% for water based paints
 - 4% for solvent based paints



Test Categories–Substrate moisture and temperature



Plastic sheet test

- ◇ To determine dynamic moisture content on concrete floors
- ◇ Mainly used for horizontal surfaces
- ◇ Qualitative test

How is the test done

Tape the edges of a 18 x 18 inch piece of plastic sheet to the concrete floor
After 16-24 hours, look for moisture behind plastic sheet or on the substrate
If dew drops or moisture are found, there is moisture in the concrete

Test Categories–Substrate moisture and temperature



Moisture meter

- ◇ To determine static moisture content on concrete, plaster and other substrates
- ◇ Quantitative test




How is the test done

Press the two contact pins directly on to the substrate and read the meter.

Moisture content has to be within 4% for solvent based (and for floor coating) products and 16% for water based products



Surface preparation

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- Wood to be cured before painting
 - On untreated wood, apply a coat of anti termite sealer like wood preserver
 - Remove oil, grease, wax etc. by solvent wash and allow to dry
 - Sand thoroughly with a sand paper and clean the surface with a solvented cloth
 - Repeat sanding and cleaning after each coat



Surface preparation on steel



- Degrease the surface by detergent wash to remove oil, grease, and other contaminants
- Wash with high pressure fresh water to remove traces of degreasing agent and soluble salts
- Blast clean the surface with suitable abrasive- normally to Sa 2.5 standard(to remove rust and to create right profile)

Other methods

- Hydro blasting or water jetting
- For light preparation, sweep blasting and power tool cleaning can also be used (St3





End

