FAQ's

What are the ingredients of paints? Explain in detail.

A Paint is a mixture of 4 basic ingredient groups namely

1. A Binder
2. Pigments and Extenders.
3. Additives
4. Solvents and Thinners

Binder plays the role of an adhesive enabling the paint to stick to the surface and holds other components to itself. The binder dissolves in the solvents used and the thinners reduce the viscosity of the resultant mixture. Binders used in the paints are: Alkyd Resins, Acrylic Resins, Poly Vinyl Acetate, Chloro Rubber, Epoxy Resins, Poly Urethane Resins and so on.

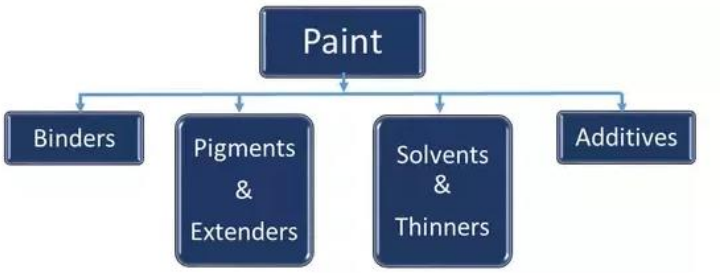
A binder could be a Thermoplastic or Thermosetting type.

A thermoplastic resin even after complete curing can be re-dissolved in a solvent and softens when heated. Lacquers are all made in thermoplastic resins. They are applied in five or more coats to increase the DFT (Dry Film Thickness)

A thermosetting resin forms a three-dimensional matrix and Cross-Linked. Thermosetting resins after curing are hard, scratch resistant and impermeable. They do not dissolve in solvents, unlike thermoplastic binders.

Pigments are a coloring material which gives you the color or the shade you are looking for. Pigments should have a high Refractive Index. The refractive index is the measure of the permeability of light wave passing through it. Higher the Refractive Index the better.

In anti-corrosive paints, pigments play the role of corrosion inhibition and corrosion converters.



Extenders are filler material in the form of powder. They increase the body in the paint and increase the solids in paint. Pigment Volume Concentration or (PVC) is a measure of Pigments in paint.

Additives: They are as the name suggests added to improve a few characteristics. Examples are flow agents, anti-skinning agents, metallic soaps, leveling agents and so on.

Solvents are used to dissolve the binders for ease of application. They help in spreading the paint.

Thinners are organic liquids or water which reduce the viscosity of the paints.

What is the difference between solvent and paint thinner?

A solvent is a material which dissolves another material. For example, when you add water to salt or sugar, they dissolve in water forming a solution. In other words, a solution contains a solvent in which the solute or the material is completely dissolved. By a process of dissolving, the ions or molecules of solute completely and uniformly dissolves or distributes themselves in the solvent media. This is a physical mixture. Both the solvents and the solute can be separated by physical processes like distilling and evaporation.

A thinner on the other hand only reduces the total solids in a mixture and effectively reduces the viscosity of the mixture. A paint as we know, is also a physical mixture of Binders, Pigments, Solvents and Additives. On application of the paint, the thinners evaporate and leaves the paint. The thinner is only added to the paint (mixture) with the role of reducing the viscosity, but not to dissolve any ingredients.

How to you select a good Exterior paint?

Below are some tips on selecting exterior paint. There are two basic types of exterior paint to choose from: oil-based and the more commonly used latex.

- Oil-based paints are very durable and water-resistant. They result in hard finish and are often used by professional painters. Use an oil-based if the surface you are painting has already been painted with oil-based paint.
- Stir oil-based paint frequently, as the oil in these types of paint tend to separate quickly.
- If using oil-based paint, be sure to use a brush or roller specifically designed for use with oil-based paint.
- Latex exterior paints have undergone many improvements, and some can be as durable as oil-based. They are also considerably easier to work with. Be sure, however, that you select an exterior latex for use on the outside of your home, not the same latex used on interior walls.

Tip: Here's how to determine whether you have acrylic or oil-based paint on your home now. Peel off a large paint-chip. If the chip bends slightly before cracking, it's probably latex. Oil-paint chips tend to snap easily.

- Latex is easy to apply, dries quickly, is durable and is resistant to the effects of direct sunlight. Cleanup is easy, and just requires water.
- Acrylic latex is the highest-quality latex paint. It will cover just about any building material including masonry and properly primed metal.

Important: Never put a new coat of latex over an old coat of oil-based paint. It will almost certainly peel.

Which type of paint is best suitable for interior walls?

Following are the various types of paints that are best suited for interior walls along with the reason

1. Latex /water based paints are good for interior walls because they do not fade away easily, less likely to crack or peel and have less odour. Moreover, latex paints are fast-drying and require only water for thinning and clean up.
2. Oil-based paints: These paints are better choice for interior walls as they are extremely durable but have strong odour . Oil-based paints are slow-drying and require mineral spirits for thinning and clean up.
3. Vinyl-acrylic latex paints: They are the least expensive and suitable for most interior walls as they have durable color and better adhesion.
4. Enamels: They have better gloss than vinyl-acrylics.

Finishing :

Use a flat finishing for interior walls as flat shining provides non-light-reflective, rich finishing. Flat paint is also great at hiding irregularities and surface imperfections.

High-gloss finishing is also a good choice as it very shiny and is easy to clean also.

What is a Cement Paint? Explain it application process.

Cement paint is an economical exterior wall finish and enhances the decor of buildings. It is resistant to fungus and algae and protects buildings from varying

weather conditions. It is water based paint and easy to apply. Following are the mixing process, application method and benefits of cement paint.

WHERE TO APPLY CEMENT PAINT

Cement paint can be applied on concrete surface, plaster surface and bricks. It gives best result on porous surface.

PREPARE THE SURFACE

- Clean the surface
  The surface must be cleaned of mortar droppings, dirt, dust, grease and other foreign matters such as growth of molds, algae, moss by brushing and washing. Efflorescence deposits must be cleaned also.
- Repair the patches
  Patches on painting area must be repaired by plastering followed by application of a coat of waterproofing cement paint on patches after wetting the surface completely.
- Clean existing paint/whitewash
  Clean old/existing surface, previously treated with whitewash and color wash thoroughly by scrapping all whitewash, color wash; when water proofing cement paint is required to apply directly on existing surfaces.

THOROUGH MIXING OF CEMENT PAINT

- Step1: Mix cement paint and water in proper ratio

Take 2 parts of cement paint and one part of water and stir thoroughly.

Take care to add cement paint gradually to the water and not vice versa.

- Step 2: Add remaining water

Add remaining one part of water to the mixture

- Step 3: Shake the solution

Stir the solution thoroughly to obtain uniform finish.

Apply first coat of cement paint

- Apply the solution
  Apply prepared solution with brushes or spray machine after cleaning and wetting cement or concrete surface. hake the solution during application and use it within one hour after mixing otherwise it

would be thicken and affect the finish.

- Getting good finish
  Take care that the thickness of paint is uniform. Brush out the laps well and dampen the surface after days work.

Apply second coat of cement paint

- After the first coat is set at least for 24 hours, apply second coat by repeating application process of the first coat.

Do proper curing

Since hardening of paint film depends on the availability of moisture for chemical reaction with cement, the water should be sprinkled on painted surface at least for two days.

Precaution for cement paint

Do not apply cement paint on surfaces which are already treated with whitewash, color wash and dry distemper unless the surface is thoroughly scraped and cleaned properly.

Benefits of cement paint

- Economical
- Better performance for outdoor protection and decoration.
- Available in various colors and can match up with any shade.
- Has matt finish, an inexpensive way to cover large areas such as cellars and garages.
- Maintains good look for many years despite exposure to worse environments.
- No chance of drying it up since its available in powder form which is mixed into water before application.

Name and explain three special types of paints.

Acid Resistant / Chemical Resistant Coating

Corrosion is basically the wearing off the surfaces due to a chemical reaction. The rust is produced as result of chemical reaction worth surface. Rust is caused simply because of Acids, Oxygen and Galvanic Action. Chemical resistant coatings are designed for metal, concrete floors & walls. Wood & Fiber to prevent the abrasion from harsh chemicals including the acids and several other abrasive materials. These coatings are designed to ensure that substrate remain hard-wearing and last longer than otherwise expected. You would successfully eliminate the costs and substantially minimize in paying for untimely floor repairing. Chemical Resistant Coatings play substantial role in protection against the harmful acids. oils, solvents and even cleaning solutions which can easily lead to the erosion on floors.

Merits of Chemical Resistant Coatings :

- Easy to Manage and Clean
- High Resistance to Abrasion
- High Resistance to Chemicals
- Low Friction and Skid Resistance
- Low Friction and Skid Resistance
- Multiple Colors
- Non Stick
- Wear Resistance

Application Areas :

- Restaurant Kitchens

- Commercial Kitchens
- Mechanical Rooms
- Dairy Floors
- Chemical Processing
- Acid Storage Rooms
- Sea Food storage warehouse
- Veterinary Floorings
- Blood Sample Collection Room
- Commercial Bakery Floors
- Battery Rooms
- Engine Rooms
- Generator Rooms

Heat Resistant Paints / Heat Reflective Paint

Heat resistant coatings are specially prepared to withstand high heat temperatures for prolonged period of time. The presence of silicone resins increase heat resistance of paints as result of which the paint will not degrade or tarnish quickly as compared to the conventional paints or coatings. The heat resistant coatings are not the same as fire retardant paints. The latter is prepared to tolerate fire damage. Heat resistant coatings cannot avert combustible materials like wood from blazing.

Heat resistant coatings are not designed to extinguish fire. The coatings only reduce chances of fire, and are functional and effective to control fire & reduce flammability of fuels by decelerating the combustion power for a limited time frame only. The fact remains, no element is completely incombustible. Heat resistant coatings are in-tumescent and swell up and increase in volume when subjected to high temperatures. The swelled up paint produces a shielding substance named 'char' which discourages heat conduction. This lends sufficient time for fire-fighters to take complete control or the area under fire. Heat resistant coatings come with fire retardant ratings showing the critical fire resistance sustainability.

Merits of Heat Resistant Coatings :

- Provides protection to Walls
- Prevents corrosion and rust formation on the surface beneath the paint
- Withstand high temperatures and doesn't breakdown
- Can withstand the temperatures of up to 400 to 1200 degree Celsius
- Retards the spreading of fire and protects buildings from any possibilities of irreparable damages

Few of Heat Resistant Coatings' Applications :

- Barbecues
- Pipes
- Lab Benches / Walls
- Petro-Chemical & Water Tanks
- Muffler! Silencers
- Boiler fronts
- Data Server Rooms
- Duct work
- Chimney stacks
- Piping and Furnace Structure

ANTI BACTERIAL PAINT -

The anti bacterial agent is used for inhibiting or reducing the growth of microorganisms on the surface of any material. These antimicrobial coatings are mainly used in healthcare industry for the prevention of hospital associated infections.

The anti bacterial wall coating & floor coatings provided by us can last up to 5 years. These coatings are durable in nature and helps in promoting a powerful biocide and stain resistant properties. These coatings can be used where infection control is required like hospitals. clinics. 0. ICU. Clean Room. Labs. surgeries. zoo's. etc.

Advantages of Anti Bacterial Paint:

- Anti microbial hygiene coating
- Cleanse, disinfect, decontaminate.
- Anti Fungal.
- Chemical Resistant
- Can be applied on any substrate.
- Kills Bacteria, germs & microbes.

Most Common Application Areas:

- Hospital Clean Rooms
- ICU
- Microbiology Labs.