

## SPECIAL PAINTS

### Heat resistant paint:

Heat resistant paint is a special paint that is designed to withstand high temperatures. These paints can resist heat, flames, grease, rust and smoke, which make them ideal for specific applications. Some varieties of heat resistant paint last at temperatures as high as about 600° C.

Merits of Heat resistant paints:

- Provides protection to surfaces
- Prevents corrosion and rust formation on the surface beneath the paint
- Withstands high temperature and does not breakdown
- Retards the spreading of fire

*Some of the common applications of heat resistant paint are listed below.*

**Boilers:** A boiler is a device that heats water or other liquids and then emanates steam and heat that is used for different applications. Boilers reach extremely high temperatures, which is why heat resistant paint is a must for these devices.

**Fireplaces:** Fireplaces add warmth and comfort to any surrounding. Today, an increasing number of designs stress on appearance as well. Heat resistant paint that can withstand high temperatures and flames from the fireplace add to the beauty of the appliance and also lasts much longer than other paints.

**Grills:** Grills and fire pits are popular for outdoor cooking whenever the weather permits. Heat resistant paint is required for these appliances because the surfaces are constantly exposed to naked flames, char and smoke. High quality heat resistant paint will last for many years without peeling, flaking or disintegrating.

**Kilns:** Kilns are used in industrial settings for several applications such as drying, baking and curing goods. Oftentimes, the temperature reaches several hundred degrees. For longer lasting coverage and protection, heat resistant paint is used in these appliances.

**Ovens:** Ovens, both commercial and residential, are designed to withstand very high temperatures. This is more applicable for appliances that have grilling and broiling settings. As a result, heat resistant paint is best suited for ovens and cooking ranges.

**Steam Pipes:** Steam pipes are used in heating systems and similar applications, wherein they transmit steam. To make the pipes last longer and protect them from rust and corrosion, heat resistant paint is used.

**Stoves:** Stoves that burn wood, charcoal or other forms of fuel, are appliances that are used for cooking or for heating purposes. Similar in use are furnaces that are used to provide heat in

**living spaces.** Heat resistant paint will protect the appliance and stand up to fumes, smoke, heat and flames for a long time.

**Chimneys:** Chimneys are subject to very high temperatures over extended periods of time. Heat resistant paint, in addition to protecting the surface, also reduces the chances of fires due to overheating. They are highly essential in improving chimney safety.

**Fans:** Fans in industrial and residential applications can heat up when operated continuously. Heat resistant paint, when coated on the appliance will prevent the formation of rust and protect the surface from grease formation and moisture.

**Vehicle Transmissions and Exhaust Systems:** Exhaust systems and vehicle transmissions reach very high temperatures during operation. Ordinary paints will wear out in no time and deteriorate the operational capability of the vehicle. Heat resistant paint resists the heat and lasts much longer.

### **Fire retardant paint:**

The fire-retardant paint helps that fire does not spread in case of fire in a building. Therefore, it is one of the most efficient measures to prevent fire spreading rapidly, as it contributes flame and smoke not to spread. Fire-retardant paint is essential especially when it comes to residential buildings, since containing fire allows people inside the building to have more time to leave it. It is important to differentiate fire retardant paint from intumescent paint. The first one avoids the spread of the flame, while the second one reacts when there is an increase in temperature in the building by swelling and creating a thick layer of foam that insulates the elements that cover it, containing the fire and preventing it from damaging the structure of the building.

**The main characteristics of fire-retardant paint are as follows:**

- It reduces flammability and combustion of building materials it coats.
- Fire-retardant paint does not prevent fires from occurring, but delays the expansion of fires.
- There are different types and, depending on each type, it can be applied on metal, wood, lacquered surfaces, etc.
- It is suitable for both indoor and outdoor surfaces.
- It can be applied with spray gun, brush or roller.

## **Eco-Friendly Paint**

Eco-friendly paint, or natural paint, is paint that has been specially designed to have lower levels of volatile organic chemicals (VOCs, for short). Generic paint smell when a new can is open or walk into a freshly painted room. It's the VOCs that smell. According to the Environmental Protection Agency, VOCs "may have short- and longer-term adverse health effects," and "while people are using products containing organic chemicals, they can expose themselves and others to very high pollutant levels, and elevated concentrations can persist in the air long after the activity is completed." VOCs are the main reason painting instructions advise that you only work in well-ventilated areas.

Waste Management Inc. lists paint products that are latex- or oil-based as household hazardous waste and have a special service for disposing of them. The pigments used to create the colors can also be hazardous at certain levels since many are made from heavy metals.

Outdoor paints and paints designed for bathrooms or kitchens may also contain fungicides, while many paint brands include biocide to increase the product's shelf life.

### **Benefits of Eco-Friendly Paint**

Environmentally friendly paint is made from a variety of natural materials, including clay, milk proteins, citrus, balsam and other minerals. One example is milk paint, which is made from the milk protein such as casein and a little lime. Milk paints have been used for hundreds of year and usually come in powder form. When mixed with water before use, it emits little to no order. However, it is intended only for internal use and doesn't weather well if used outside. Since eco-friendly paints are low in VOC chemicals, they're much safer to use in our home.

### **Plastic paint:**

The water-based wall paint or plastic emulsion paint is based on acrylic and offer a smooth matte finish to your walls. In addition to being washable and easy to maintain, these paints are exceptionally durable. The plastic emulsion paints are humidity-resistant as well. As a result, you can use them in humid rooms like kitchenettes or bathrooms with no trouble.

#### **Some benefit of the Platic paint:**

**Wash-ability:** Plastic emulsion paints are easy to clean. They offer a rich and lavish finish to your walls by assuring that stubborn stains can be washed without problems from your walls, keeping your home looking flawless, spotless as well as stunning all the time.

**Affordability:** With much better properties including wash-ability and durability, plastic paints offer more value for your treasured money. The cost for painting a house interior with plastic paint is reasonable and has quite a lot of benefits over the typical paint that most people decide on.

**Durability:** Plastic Paints are made up of pure acrylic latex as well as high opacity micro-pigments. The surface of the paint is fairly tough, making them durable and quick to cure. The color of the paint is reserved for a longer duration and exposure to water doesn't disturb the quality or color of these paints.

Furthermore, they are high resisted to low-temperature, dirt-pick up resistance, resisted to tear, and low water absorption capability. So emulsion paint selection is a tricky task for long lasting protection. Plastic emulsion paint is water-based acrylic wall paint and well known for its smooth type of finish which adds high washability properties in addition to non-objectionable odor, humidity resistant as well. Plastic paint is mostly used in high-class areas including auditoriums, showrooms, theaters etc.

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