



GO GREEN

Global warming is a very real threat. This is not a figment of some scientist's imagination. Research shows that from the food we eat to the paint we use in our homes there is a carbon footprint, impacting the environment in some negative way.

Paint making is probably one of the oldest technologies around. Ancient Egyptians and the ancient Asians used natural ingredients like egg yolk and raw natural pigments mixed together for decorative and protective purposes. We have come a long way from there. Paint has three main components:

- a) the pigment which gives it colour and opacity
- b) the binder or resin that disperses the pigment and contributes to the physical, mechanical and chemical properties
- c) the carrier solvent that keeps the paint in liquid form and evaporates once it is exposed to air.

Additives are added in small amounts to the paint to ensure in can stability, long shelf life, mould resistance, and other properties that contribute to the overall performance of the product.

Why do we use carrier solvents?

Solvents help paint dry quickly, provide a smooth finish, flow easily and promote levelling and curing. They also help control the hardness, thickness and smoothness of a typical application. Once the paint film is formed, the carrier solvent evaporates, thus contributing to VOCs (Volatile Organic Compounds) being released into the atmosphere. Toxic substances in pigments such as lead also contribute to emissions.

In 1996, Revisions to Clean Air Act demanded that paint manufacturers do something about the levels of VOCs.

What are VOCs?

VOCs are carbon compounds that evaporate from carrier solvents at room temperature and react in sunlight to help form ground level ozone.

Besides being hazardous to the environment, it is also harmful to human health.

VOCs can cause respiratory problems, skin and eye irritations, headaches, nausea, muscle weakness, and more serious ailments and diseases, according to the Environmental Protection Agency (EPA). The EPA was started in 1967 to regulate the toxic pollutants that were released into the atmosphere that were harmful to human health and hazardous to the environment. Before the EPA was formed a gallon (3.8lt) of paint released 900grams of VOCs into the atmosphere. Shocking!!

The introduction of federal and state regulations around the world motivated raw material suppliers and paint manufacturers to think outside the box.

The paint industry's research and development teams had to find a way to replace or reduce the amount of solvent that was used in paints.

Paint companies had to look for alternative raw materials that would now be environmentally friendly. The industry then turned its attention to water based products.

As a result of industry research efforts, four main environmentally friendly or "green" technologies evolved. These four technologies include waterborne coatings, powder coatings, high solid coatings, and radiation curable coatings. Water based coatings have remained the prime choice for manufacturers as well as end users.

Water based paints use water as their carrier solvent.

Marmoran products are Natural Protective coatings. "Natural" paints are made mostly from renewable or abundant naturally occurring materials e.g. sand and stone.

95% of paints /coatings manufactured by Marmoran are water based. Our products are environmentally preferable and are continuously being improved. The recommended level by the EPA (Environmental Protection Agency) is 100g/lit for Exterior Architectural Flat Intermediate /Topcoats. The GREEN SEAL STANDARD for the VOC levels in a coating is 50 g/lit for flat coatings and 150g/lit for non- flat coatings. Our water based products contain 40g/lit. This is far below the EPA and the GREEN SEAL recommended level.

We use natural raw materials. No harsh solvents, harmful petroleum derivatives or other toxic substances are utilised. This eliminates environmental damage and pollution. Clean up requires water instead of solvents, which affect indoor air quality and are harmful to the environment. Furthermore, no hazardous waste is produced.

Government regulations and societal demands are forcing paint manufacturers to develop paints that are eco-friendly and that meet the standards set by painters and contractors. However, today a large number of raw material suppliers and manufacturers are voluntarily adapting the green trend for their products.

Our R&D department is continuously striving to produce paints that will work well in all applications.

Quality coatings last longer. Good preparation of surfaces before coating ensures that less product will be required and provide a longer life. Clean, fill holes and try to use water based products from start to finish.

Green is not only good for business but also for the betterment of our environment. The green trend will soon be a rule rather than an exception.

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