#### The First Ready-to-Use **House Paint**



In 1866, Harry Sherwin, Alanson Osborn, and Edward Williams founded Sherwin, Williams & Co in Cleveland, Ohio, pioneering the production of ready-touse house paint.

### Leonardo da Vinci: Pioneer of **Paint Innovation**

The famous artist and polymath was also a paint innovator. He developed new techniques for mixing and applying paint, contributing to the advancement of the medium.



**SYED** 

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### The Oldest House Paint Used Milk, Lime, and Honey

Dating back to cavemen and ancient Egypt, the earliest house paint combined plant dyes and natural pigments with milk, lime, and honey. Initially used for decoration, it was later also used for protection.



## First Synthetic Pigments

Egyptians were among the first to create synthetic pigments. They made a blue pigment known as Egyptian Blue from calcium copper silicate around 2500 BCE.



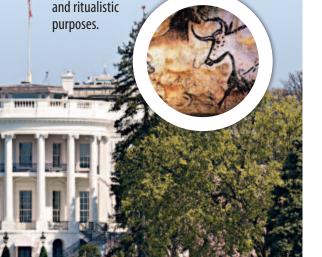
### The White House Wasn't Meant to Stay White

Originally, the White House was painted with a limebased whitewash intended to fade over time, leaving the white color only in cracks and crevices. However, it was repeatedly repainted, maintaining the white appearance.

The nickname "White House" existed for about 10 years before it was permanently painted with lead-based white paint in 1818. The name remained unofficial until 1910 when President Theodore Roosevelt made it the official, iconic name it holds today.



The first interior wall paintings date back to prehistoric times, with ancient cave dwellers decorating their living spaces with natural pigments like ochre and charcoal. These early artworks, found in caves like Lascaux in France, depicted animals and scenes from daily life, serving both aesthetic



### **USAGE OF SAFE AND HEALTHY PAINTS**

# is of paramount importance

The Bangladesh paint industry has been undergoing significant transitions since independence. Thanks to the contributions of local paint manufacturers, taking the lead role in establishing full-fledged paint manufacturing units, mostly centered around Chittagong port city due to ease of raw materials and better connectivity by road, water, and rail across the country. In the late 80s, multinational companies began investing in plants, machinery, and establishing QC and R&D setups. Now, the paints industry is not limiting itself to meeting domestic paint consumption and coatings requirements but also ensuring exports to some extent with benchmark product quality produced at their factories.

Since the paints industry is highly reliant on raw materials procured from overseas, banking regulations, foreign exchange rates, margins, duties, tariffs, and freight availability heavily influence the availability and price of paints and their solutions. At present, the market size of the paints industry is more than BDT 4500 Crs with an annual growth of

approximately 7%-8%.

With the increasing number of township developments, structural transformations from mid-size building structures to megastructures, condominiums, exploration of hotels, tourism, and recreating centers, and other urban amenities, the usage of safe and healthy paints is of paramount importance for the protection of fixed assets, on top of the aesthetic beautification of structures. Sustainability, environmental protection, and low volatile organic compounds are major challenges for the paints industry, which come with a lot of research and costs.

One of the global players in paints and coatings, AkzoNobel B.V., is working towards attaining and maintaining benchmark quality through its world-famous brands Dulux, International, and Interpon in the Bangladesh market. We are keen to work with our partners; i.e., industry and allied industries, including social groups who are not only directly related to our value chain but also indirectly facilitate in building the country.

# SCIENCE

Paint is not merely a colorful coating; it's a fusion of science and artistry that transforms surfaces and spaces. **Understanding the** intricate chemistry and physics behind paint unveils the magic of its application and durability.

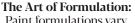
### ZUBIAN KARIM THAKUR

### **How Paint Works:**

At its core, paint consists of three essential components: pigments, binders, and solvents. Pigments provide color and opacity, binders hold the pigments together and adhere them to surfaces, while solvents keep the paint in liquid form for application. When paint is applied, solvents evaporate, leaving

behind a thin film of pigments and binders. As the film dries, the binders undergo a process called polymerization, forming a durable, protective layer. This layer shields surfaces from environmental

factors like moisture, UV radiation, and



Paint formulations vary based on their intended use and properties desired. For example, interior wall paints prioritize washability and color retention, while exterior paints focus on weather resistance and longevity. Chemists meticulously balance

ingredients to achieve desired characteristics. Modern paints often incorporate additives like thickeners, dispersants, and preservatives to enhance performance and application properties.

### **Manufacturing Process:**

Paint production involves precise blending and mixing of raw materials. Pigments are dispersed evenly throughout the liquid binder using high-speed mixers or bead mills. Quality control measures ensure consistency in color, viscosity, and durability.

Once formulated, paints undergo rigorous testing for adherence, flexibility, and resistance to environmental stressors. Only after passing quality checks are they packaged for distribution.



