

1.1 BACKGROUND TO THE STUDY

Paint Factory or plant is an industrial site, usually consisting of buildings and machinery, or more commonly a complex having several buildings, where workers process raw materials into paint. Factories arose with the introduction of machinery during the industrial revolution when the capital and space requirements became too great for cottage industry and workshops.

Paint is a subdivision of surface coating. It is a relatively opaque solid coating applied as a thin layer whose films are usually formed by polymerization of polyunsaturated oil. However, other subdivisions of surface coating include:

varnishes (clear coating), enamels (pigmented varnishes), lacquers (film formed by evaporation only), printing inks and polishes. Paints generally have very low thermal conductivity, electrically inert and can be washed and cleaned.

The various raw materials for making paints include pigments, vehicle, alkyd resins, surfactants, solvents (thinners) and colouring matters.

Paints are classified into two principal types:

Resin based paints (Gloss finishes) and Latex based paints (Emulsion paints). The major difference between the two is only in the types of vehicle used and cost.

- Resin based paints are used for exterior and interior surfaces and are dry to a lustrous or shiny finish.

- Emulsion (Latex) paint involves the emulsion of 2-phases one of which is water and any other phase.

Classically, emulsion is a suspension of one phase in another. Latex paints have as their major film-forming constituent synthetic resin latex with or without other film-forming constituents added in an oil-water emulsion type

system. The continuous phase consists of an alkali – dispersed hydrophobic colloid in water and contains two more

different types of particles in suspension, styrene-butadiene (SBR) copolymer which was the original quality film former in emulsion paint.

§ To create an ideal factory architecture and to introduce a level of automation in the proposed paint factory in Nigeria.

§ Finally, to help in the state and Federal Government Programme in rural development and this could be achieved through industrial development.

1.4 MOTIVATION

Establishing a house or a commercial space does not stop at having the edifice erected on a piece of land. This is since you have to make sure that your structure preserves its excellent condition so that you can enjoy your investment for a long time. There are many industrial methods that you can do to keep your home or your workspace in good condition, but one of the most effective steps that you should take is to have your walls re-applied with the right paint.

For decades now, nets and sprays have been the only effective methods for controlling the mosquito that causes malaria and dengue. I think by introducing the factory, it will lay more emphasis on protection by inventing a way of embedding pesticide in microcapsule stirred into house paints. And this insecticide will be realized slowly from the paint and will remain effective for two to four years, while spray will be typically re-applied at least every 6 months.

The paint will act like a vaccine for houses and buildings.

The minute amount of pesticides released vastating from the paint won't be The introduction or provision of paint factory in Makurdi will help to increase the effectiveness of other producing industries around e.g.

- Most industries producing steel and aluminum building cladding.

- For yatch, small boats and craft, fishing fleets manufacturers.

- For all furniture and plywood industries

- For most petrochemical plants-protective coating
- For all kinds of vessels that visit Nigeria port.
- For manufacturers of refrigeration, bicycles, other household articles, drums and industrial components – powder paints.
- For building industries etc

Therefore, one should realize that this material is utilized in many industries and that such service industry should be established for the propagation of other.

Finally, I intend to increase the awareness of this service industry in Nigeria, and that what prompted my motivation towards proposing this project.

1.5 AIMS

The ultimate aim of this project is to create, functional, simple, pleasing, economical, orderly, flexible, safe and convenient industrial building – paint factory.

And to satisfy the key words of the aims, the following are inevitable:

§ To achieve an effective and efficient design for a factory with a serious view to flexibility, adaptability and versatility of the building structures. Therefore, the aim is to realize a purely functional planning with a specific purpose of smooth and maximum efficient working of the different machineries, the administration of the complex and the overall production.

To create a system that will allow personnel; operational and administrative to enjoy efficient and pleasant working environment. To provide efficient circulation system between the individual units of the factory and within the layout as a whole thereby facilitating easy movement and assemblage of raw materials and distribution of finished products.

To enhance the psychology of workers towards efficiency by creating an aesthetical industrial architecture.

To reflect the use to which the factory is to be put into which will be in form of an advertisement for the products.

There will be a deviation from the old idea which emphasizes much on mass to a modern approach which gives emphasis on lines and planes (volume).

1.6 SCOPE OF WORK

The factory will undertake on mass production basis, the manufacture of paints and other paint products. It will also consist of four major parts of an industrial building;

§ Research

§ Manufacturing

§ Administration and

§ Welfare.

The research includes laboratory and library to investigate and recommend possible way of producing better products and raw materials.

The manufacturing section, according to the manufacturing process, include: dispersion, mixing, sieving and canning.

The administration comprises of offices, personnel and sales while

The welfare section includes the factory cline and staff canteen.

Other components include the maintenance block, staff products, and delivery visito bays and yard etc.

1.7 RESEARCH METHODOLOGY

To really collect important information towards the realization of this project and to make an important contribution to

Architecture, some research activities had been carried out and data collected through; Visits to existing paint factories site of the projects to determine their production processes, organizational chart and determine the requirement and conditions to be fulfilled in the setting up of such factory.

§ Use of libraries, research institute, books, journals and unpublished manuscript of thesis reports.

§ Visits to relevant Government establishment like the ministry of commerce and industry, for collection of data,

byelaws, history and other important information.

§ Personal interview of some people.

§ Internet.

1.8 LIMITATION OF RESEARCH

Due to the limitation of standard paint factories in Nigeria, one is limited to researching with only the small scale private paint factories.

In researching with the private factories it was discovered that the factories were over protective of their setting.

They feared that their competitors might get hold of information given out for the research and have a hold over them. Some of them that co-operated discourage photographs.

Also the fact that the country is not in peace due to the Boko Haram and other threats, the factories are conscious and at the same time trying to protect their life and properties.

Materials on paint factories are not much available in libraries, research institutes, records and documents on paint factories in Nigeria.

1.9 IMPORTANCE OF THE PROJECT

The importance or the breaks through this project hope to achieve are:

- To provide a comprehensive setting for paint industry in Nigeria in order to help improve the economy attains

technology and industrial independence.

- To create job opportunities for the increasing labour forces.

- It will help in saving foreign exchange by providing goods which would have been purchased abroad.

1.10 HISTORICAL DEVELOPMENT OF FACTORY

The factory began with the shop-connected residence as in Ancient Egypt, then the open air workshops and the home the home industry as in Greece. Then, some specialized craft and trades like metal smiting, carpentry, pottery, shoe making were home industry; therefore, operation were in dwelling houses.

PAINT FACTORY

The complete project material is available and ready for download. All what you need to do is to order for the complete material. The price for the material is NGN 3,000.00.

Make payment via bank transfer to Bank: Guaranteed Trust Bank, Account name: Emi-Aware technology, Account Number: 0424875728

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Regards!!!