



**Aeronautical Industry**

**EXPLORE WHAT'S INSIDE THIS ISSUE:**

*#Benefits of Eco-Friendly Water-Based Epoxy and PU Composite Flooring Systems.*

*#Introduction to Advancements in Wall coating for Residential & Commercial Buildings in India.*

*#Advanced Staircase Safety System's for High-Rise Buildings and Commercial Spaces.*

**BENEFITS OF ECO-FRIENDLY WATER-BASED EPOXY AND PU COMPOSITE FLOORING SYSTEMS**

*Written by Mr.B.M.Nagarajan (Director)*

Water based Epoxy & PU Composite Flooring systems are seamless, joint less uniquely formulated self-leveling system for use where exceptional chemical, abrasion & impact resistance are required.

- Water-based and hence VOC compliant as well as moistureinsensitive
- The flooring is joint-less and monolithic and hence oil and grease does not penetrate through the joints
- Fast setting & hence very short turn-around time
- Highly abrasion resistant
- Only system with very high compressive as well as flexural strength
- High impact and chemical resistant
- More durable than most of the flooring systems
- Semi-glossy floor, can resist hot water and easily cleanable
- Anti-bacterial & anti-fungal surface
- Optional PU sealer coat will improve stain resistance

**Applications of Eco-Friendly High Strength Floor's**

Warehouses, wash areas and dispatch areas in pharma units, Airport hangars and other heavy-traffic areas, Food processing industry especially cold rooms including flight-kitchens, ships, dairies Electrical, Automobile and auto-ancillaries, Very high abrasion areas such as assembly lines, card-punching etc, Refrigerated vans and other steel structural flooring, wherein corrosion resistance is required.

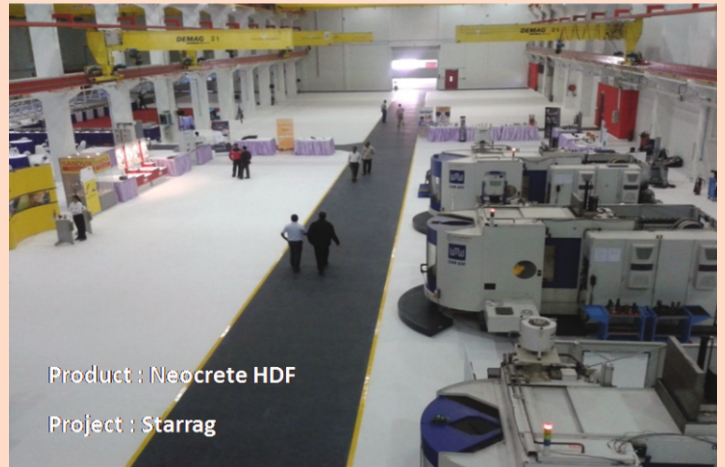


**Metal Wall Texture**

No matter what kind of concrete surface you have, there is always range of flooring and finishes that can be added to enhance the protection and aesthetics of your floors. Some of our PU Concrete and Epoxy Concrete Flooring works are shown below.

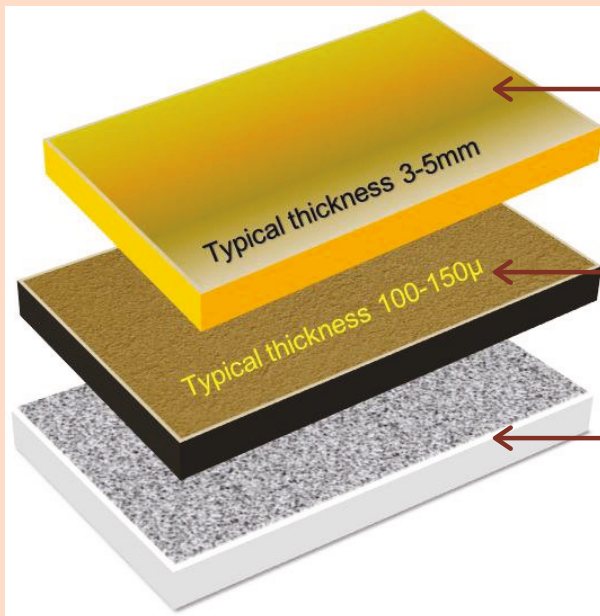


Product : Neocrete HDF  
Project : Nestle



Product : Neocrete HDF  
Project : Starrag

### WATER BASED EPOXY/PU FLOOR SCHEMATICS



Water-borne epoxy based system is a revolutionary product that combines the strength of Epoxy with that of cement to provide a high-impact seamless topping with an excellent abrasion resistance.

Water-borne, two-component epoxy primer viz. Neoflor Primer WB that penetrates into the pores of concrete and provides excellent inter-phase adhesion between base concrete and water-borne epoxy concrete and followed by quartz broadcast for better mechanical adhesion.

Base concrete Grade M20 minimum, preferably vacuum dewatered and power-trowelled with all control joints cut at appropriate time and distance.

Water-Based Epoxy / PU Composite is used in wide range of industries, not only in industry, but also in many smaller-scale businesses. The important characteristics of Water-Based Epoxy / PU Composite, the easy cleaning with achievement of important standards and the durability are the most important factors. Here are some examples of the use of PU concrete / polyurethane concrete: Chemical industry, Pharmaceutical industry, Research areas, Cold Storage, laboratories & processed food industry, butchery & bakery, also wine press & brewery and Cheese & Dairy.

#### **Conclusion:**

- Specialty flooring are recommended for special applications purposes only
- Water-borne epoxy cement composite flooring (with or without polishing)
  - Water-borne polyurethane cement composite flooring

The above floorings are required when the following properties are desired:

- Where exceptional abrasion and impact strength are required
- Hot water/steam wash is required
- Specified chemical resistance
- As moisture barrier system





# INTRODUCTION TO ADVANCEMENTS IN WALL COATING FOR RESIDENTIAL & COMMERCIAL BUILDINGS IN INDIA

*Written by Mr. Balaji Ravikumar  
(Regional Manager - South)*

We do this through our Performance Coatings systems, which are specifically developed for professional use by registered contractors, dealers and other channel partners all over the country. In addition, our uniqueness in wall coating range has been developed to offer wide range of decorative exterior & interior wall coatings in the market today. All our products are formulated to last long and have been tested to meet the needs of the Architects & Consultants, End Customers and Channel Partners.

Neocrete introduces its "Mind-Blowing" Metal Wall Textures, Coatings, Designs, Patterns & Conceptual Column Art and many more to make stunning effects over any vertical surfaces.

## Embossed Putty:



## Embossed Putty with Metallic Coating:



## Designer Wall Textures:



## Metal Wall Textures:



## Conceptual Column Art:



## Stamped Wall Textures:



Wooden Texture

Cobble Stone Texture

Brick Texture

## GUIDELINES FOR FIRE PROTECTION AND MEANS OF EXIT REQUIREMENTS (INCLUDING HIGH RISE BUILDINGS)

### Internal Staircases:

- Shall be composed of non-combustible materials throughout.
- External wall of building shall constitute one of its sides.
- Shall not be arranged around a lift shaft.
- Minimum flight width=1000mm, Maximum flight width=2000mm.
- Minimum tread = 250mm, Maximum riser=190mm, Minimum Head Room=2200mm. (varying slightly based on classification of buildings)

### FIRE PROTECTION REQUIREMENTS FOR HIGH RISE BUILDINGS – 15M in Height or Above Construction:

#### Construction:

- All materials of construction in load bearing elements, stairways and corridors and facades shall be non-combustible.
- The interior finishes should not have a flame spreadability rating exceeding Class 1.
- The internal walls or staircase shall be of brick or RCC with minimum of 2H fire rating.
- The staircase shall be well ventilated.
- The roof of the shaft shall be one meter above the surrounding roof with fire resistance rating of 2h.

The above is the minimum specifications for a staircase in India.



Safety Staircase with Nosing

## ADVANCED STAIRCASE SAFETY SYSTEM'S FOR HIGH-RISE BUILDINGS AND COMMERCIAL SPACES

*Written by Mr.B.M.Nagarajan (Director)*

Staircase in a high-rise tower is the most important, but most-neglected part of the building. Most people do not need to use the staircase in normal times, but in case of unlikely fire, the staircase becomes the most important life-saving conduit to transport the people to safety. Hence there are guidelines that were drawn for construction as well as maintenance of staircases in high-rises so that they are absolutely safe in times of dire need.

### Why do staircase needs special treatment?

It is a normal practice to cover staircases with kota stone, ceramic or synthetic tiles etc. They do not provide special functional requirements needed for providing fire and other safety features, which are:

- Protection of concrete from carbonation or chloride attack.
- Providing anti-slip characteristics even in wet conditions.
- Cost effective as well as least execution time

The National Building Code, which is a document containing standardized requirement for the design & construction of most types of building in US specifies minimum guidelines for protection of life and property.

### Types of Staircase Safety System:

However, in developed world, there are more stringent requirements for staircases and these changes & additions to the means of egress requirements have been introduced in the International Building Code for high-rise buildings.

### Three types of staircase safety system is considered here:

- Anti-skid epoxy coatings in staircases and landings.
- Staircase nosings.
- Photo-luminescent Markings.

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