



Epoxy Metallic flooring, Mumbai

EXPLORE WHAT'S INSIDE THIS ISSUE:

#Dazzling 3D/Metallic Epoxy Flooring for Residential & Commercial buildings

#Quick Restoration of your Flooring with Epoxy Hybrid Roll

#What is the function of anticarbonation coatings?

DAZZLING 3D/METALLIC EPOXY FLOORING FOR RESIDENTIAL & COMMERCIAL BUILDINGS

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

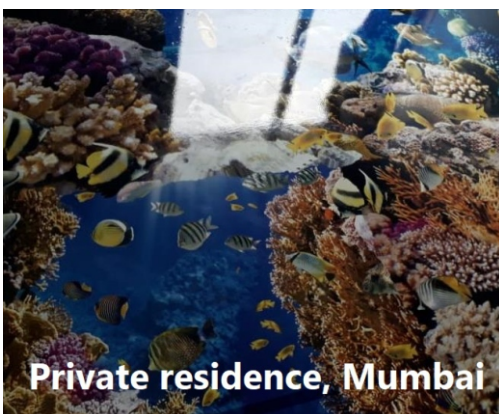
"You can't solve a problem on the same level that it was created. You have to rise above it to the next level." – Albert Einstein

"Nothing changes if nothing changes." Well if nothing changes, we stay the same. We don't grow. We don't evolve. We don't get better. And that's not going to work-not for you, and not for the world. This is especially true for the flooring industry. The demand for aesthetics and sustainability has made the industry key players think out of the box.

Today and for the future, the industry trend is shifting towards developing a more efficient, sustainable processes in flooring practices. Discussed below are two innovative flooring types being executed across the globe:

3D Flooring:

3D Epoxy floors have become the rage of the social media. From bathrooms to living rooms, lobbies to bedrooms, swimming pools to Jacuzzis, 3D floorings have captured the imagination of general public as well as designers. They are popular across the globe for its 'WOW' factor as well as its uniqueness. It is believed that these flooring will replace all other types of flooring in home-décor industry.



Private residence, Mumbai

No matter what kind of flooring surface you have, there is always range of coatings and finishes that can be added to enhance the protection and aesthetics of your floors. Some of our 3D flooring works are shown below.



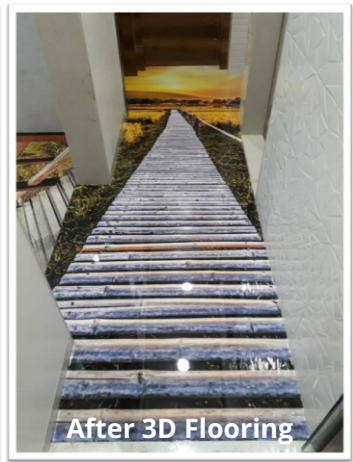
Before 3D Flooring



After 3D Flooring



Before 3D Flooring



After 3D Flooring



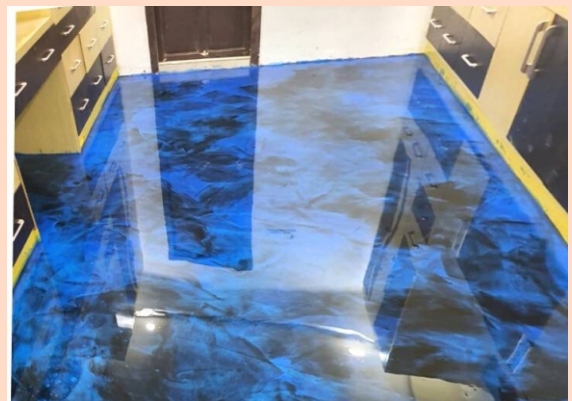
During Execution at Inox, Mumbai



Currently at Inox, Mumbai

Metallic Flooring:

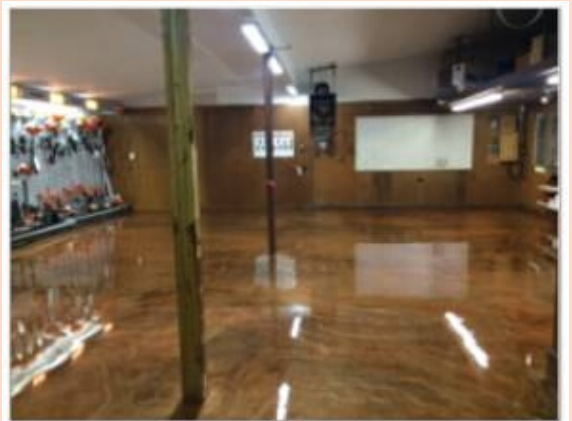
Metallic epoxy flooring Another type of flooring, which is gaining traction in the commercial and residential space, is Metallic flooring. With the advent of high-quality metallic pigments along with high-performance epoxy resins, creating a fusion of colours and designs on the floor to a breath-taking effect has become possible. From retail stores to restaurants, villas to condominiums, high-end clinics to multiplexes, clients wish to give the visitors an unique experience in walking over a floor.



Conclusion:

The Indian Industrial Flooring industry has moved beyond preconceived notions, today everything is about customization. The one that fits your project need should be analysed carefully. There are several options, choose wisely!

Neocrete offers the entire turnkey system for 3D & metallic floors from designing, printing & laying epoxy with an exceptional glasslike epoxy sealer that accentuates the effect of 3D floors. 3D and metallic floors add a new dimension to your dream of providing a unique floors and walls that are unmatched.





Epoxy Hybrid Roll - User Experience Photos

QUICK RESTORATION OF YOUR FLOORING WITH EPOXY HYBRID ROLL

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

The increasing customer's and applicator's demand for quick fixing their epoxy or PU floor damages which are mainly due to abrasions caused by humans, trolley's and material handling equipment's urged us the need of solving it with an innovative solution.

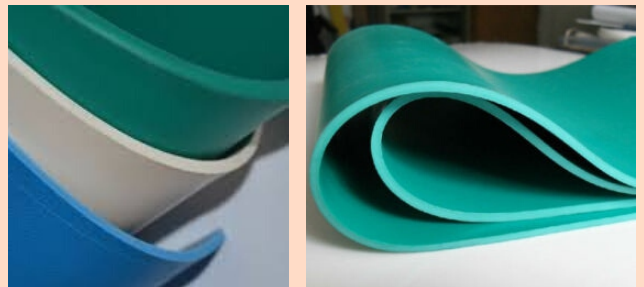
On an average, Indian manufacturing industries are in need of patch works on their epoxy/PU flooring twice or thrice in six months. Since, they are under a short time frame to restore their floor damages. Our team's first challenge is to bring down the application time. Additionally, they were also able to reduce the cost of application, curing time and product cost.

Now our highly passionate customer-centric R&D team had able to deliver wide range of rolls with properties like Electrostatic Dissipative (ESD), Conductive and Insulative. Further, research in this technology will let us introduce more resinous flooring restoration in the near future.

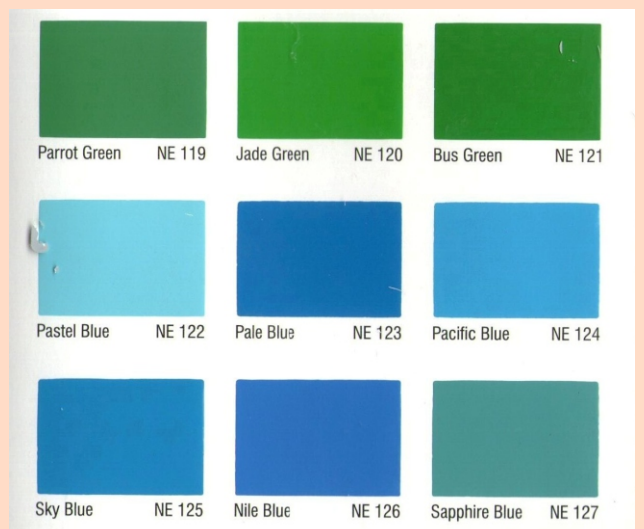
Neocrete introduces its "Novel" product for cutting down application time to restore epoxy topcoat damages.

Generally confined to small works, epoxy floor repair work person's are employed to repair the chipped surface and localized floor damage etc. Initially, they grind and prepare the surface for priming and followed by floor repair mortar or screed. After 8 to 12 Hrs of curing Epoxy or PU top coat is done and further curing take place from 8 to 12 Hrs to start foot traffic. This can take minimum 72 Hrs to reach a complete cure to withstand any impact strength and tensile strength. But, a full chemical resistance can be achieved only after 7 Days.

In terms of Epoxy hybrid roll, It will mostly take 30 Mins to 1 Hr to grind/prepare the surface and Cut the roll as per the required area. Finally, by applying two component epoxy adhesive before placing the roll will get your floor cured in less then 5 Hrs. In just 6 Hrs, we were able to let the floor complete get restored in 8 Hrs.



The above image shows the flexibility of the roll

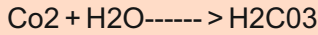


The above image shows the range of fast moving colours manufactured by Neocrete.

How does carbonation attach takes place ?

In construction industry, carbonation is referred to "the process of chemical weathering by which minerals containing soda, lime, potash and other basic oxides are changed to carbonates by the action of carbon dioxide and water".

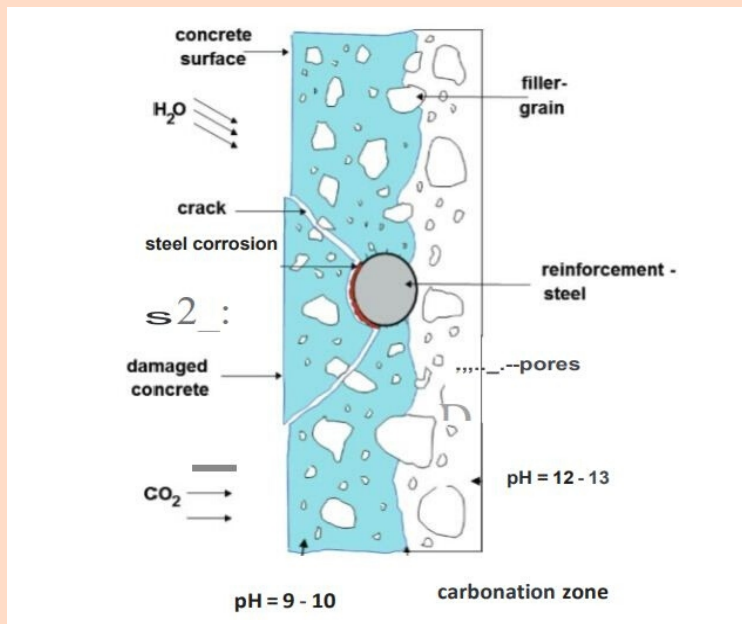
The process is represented by the reaction below,



As represented by the above chemical reaction, carbon dioxide with water forms carbonic acid. This carbonic acid subsequently reacts with alkaline material such as lime to form calcium carbonate. In addition to carbonation, chloride ions in the atmosphere (sea-side structures) will also substantially affect concrete durability.

The above factors clearly indicate that the protection of concrete and reinforcement from the ingress of water, CO₂, chloride and other harmful gases (if any) is imperative to prolong the life of the structure (especially the parking decks) by means of flexible PU coatings (rather than rigid epoxy coatings).

While PU deck coatings take care of carbonation on the floor concrete, it is important to consider the other areas exposed to concrete such as beams, columns, soffit of slab and restraining RCC walls. A simple paint is not sufficient to protect these structures from carbonation or chloride attacks and it is imperative that these are to be coated with anti-carbonation coatings.



Carbonation zone schematic diagram

WHAT IS THE FUNCTION OF ANTI-CARBONATION COATINGS?

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

- The thickness of coating shall be atleast 200 microns (anti- carbonation properties at around thickness of above 200 micron DFT i.e Sd value obtained anything above 50 m is sufficient to give necessary anticarbonation properties.)
- The coating is extremely durable (The durability of the coatings depends upon its stability against the harsh environment)
- It is capable of allowing moisture inside the concrete to breath-out (Generally, water based coatings is more permeable to gases and water vapour. These coatings are formulated by using polymer dispersions. Water vapour permeability is a desirable property to allow water vapour to escape from the substrate. But, if the permeability is too high, carbon dioxide can diffuse from atmosphere into the substrate easily. Hence there is a need for coatings with moderate gas permeability which can prevent Carbon dioxide from diffusing into the substrate while allowing moisture to escape.)
- It is flexible enough to take care of minor cracks in concrete (Obviously, cracked areas will allow CO₂ to permeate into the concrete and cause the failure)

Conclusion:

It should be noted that there are numerous ways to mitigate the effects of carbonation deterioration, including thicker concrete covers, lower w/c ratios, treated reinforcement bars, anti-carbonation coatings or a combination of all. These measures are especially pertinent to consider when designing for concrete structures in dense urban areas, which are subject to high levels of atmospheric carbon dioxide, humidity, and temperatures.

Carbonation will only become more of a concern in the future as carbon dioxide increases in conjunction with urbanization, and the number of structural failures related will escalate.

Contact Details:

Head Office: 817, Hubtown VIVA, Shankarwadi, Off WEH, Jogeshwari East, Mumbai-400060.
Ph: 022-67416418 / 28200198, **Mobile:** 09385555556 **Email:** Info@neocrete.co.in,
Website: www.neocrete.co.in

Branch Locations: Pune, Banglore & Chennai.