



Boomerang, Mumbai

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

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**AN OVERVIEW OF PARKING DECK FLOORING**

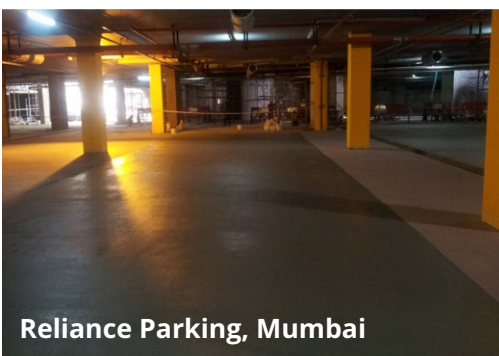
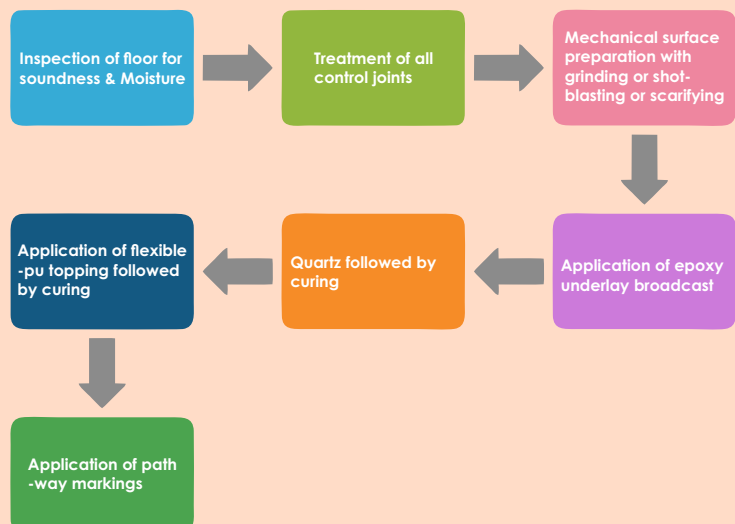
Written by Mr.B.M.Nagarajan (Director)

Modern day multi-storey residential and commercial buildings boast of multilevel parking lots in cities like Mumbai, Delhi, Chennai & Bangalore. There are both epoxy and PU based parking deck coatings with an optional UV resistant coatings (for exterior areas). Deck coatings not only provide aesthetics and cleanability but also protects the concrete from carbonation and chloride attack.

**Some of the advantages of these coatings are:**

Aesthetically attractive – brightens up dull, dark, musty car parks  
 Reduces noise – stops tyre squeal, Hard wearing – abrasion resistant, Fire resistant, Slip resistant, Resistant to cracking & strength.

**Sequence of Application Steps**

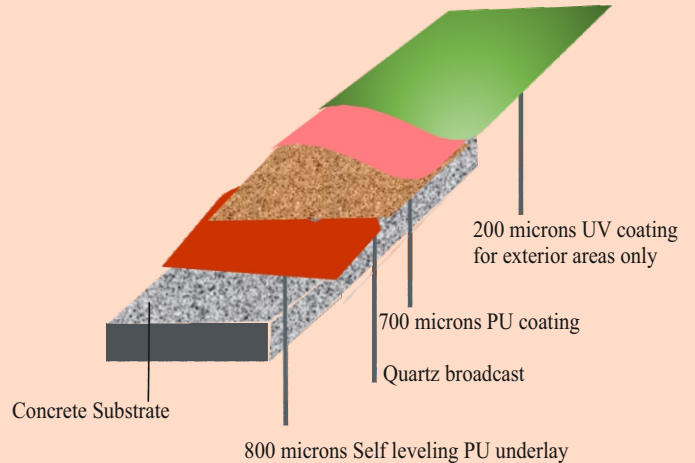


Reliance Parking, Mumbai

## IMPORTANCE OF PARKING DECK FLOORING

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

No matter what kind of deck you have, there are always coatings and finishes that you can add to enhance the protection and aesthetics of your deck. Parking deck flooring not only keep your deck looking new, but they also can add to the life of your deck. While every parking deck needs something different, if you have a parking deck and see a lot of traffic, you may be in need of strong screed below the top coat. Similarly, In both commercial & residential buildings it is an essential part of maintaining any parking deck that sees a lot of traffic. When applied, these coatings add advantages to the surface so that it can withstand even the harsh conditions. Parking deck flooring are necessary because these surfaces come into contact with many vehicles as well being impacted by harsh environments like braking cars on the exit ramp, mud and slush on the car-tyres, carbonation and the penetration of oil, gasoline, grease etc



Details of Floor for Parking Deck for exterior areas 1.5 to 2 mm PU self-leveling flooring system with textured topping

### Important considerations for parking deck floorings:

- **Load bearing capacity:** The floor topping shall be capable of withstanding both the static and dynamic loads of passing vehicles as well as braking cars.
- **Slip resistance:** The floor topping shall provide the necessary friction with an anti-slip characteristics both in dry as well as wet condition. The possibility of car-tyres carrying mud and slush and causing abrasion and slip shall be considered.
- **Oil and gasoline resistance:** The floor topping shall be resistant to the penetration of oil, gasoline, grease etc which are likely to fall off the parked vehicles.
- **Aesthetics:** The floor topping shall be of pleasing colours to provide a face-lift to the entire parking area. Additionally, it shall have all the line-markings for easy identification and navigation.
- **Easy cleanability:** The floor topping shall be easily cleanable and maintainable.
- **Capability to withstand turning torque & shear stress:** Especially in ramps and drive-ways, the coating shall be flexible enough to take care of these stresses.
- **Capability to resist carbonation & chloride attack:** Especially in cramped drive-ways, cars produce carbon-dioxide that could corrode reinforcement in due course of time. Deck coatings prevent this happening.



## WORLD'S FIRST ESD FLOORING USING NANOTECHNOLOGY

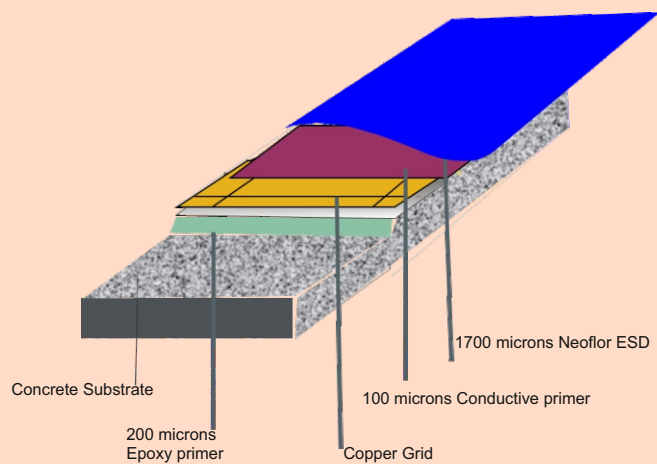
*Written by Mr. Balaji Ravikumar*

We were able to attain the following properties using Single Walled Carbon Nanotube (SWCNT).

- Higher mechanical properties than concrete.
- Many manufacturers of ESD epoxy floorings use carbon fibre technology while we use carbon nanotube technology which ensures uniform distribution, more durable, uniform resistance measurements and better aesthetics and low maintenance. Besides, many colour shades can be offered without the problematic carbon fibres.
- The resistance readings is highly dependent on orientation of carbon fibres which is not the case with carbon nanotubes. Thus maintenance coating as low as 500 microns is possible without any effect on resistance readings.
- The combination of cyclo-aliphatic hardeners used by us provide better chemical resistance and more flexibility.
- Unlike a few manufacturers (who offer higher thicknesses) use trowellable screed with higher filler loading (mostly graphite). This type of floor can not offer the surface finish, a self-leveling floor can offer Available in conductive and static-dissipative forms.



NCR Chennai - During Execution



ESD Flooring schematic diagram



### Neocrete Challenging Its Competitors with Its Advanced ESD Flooring Technologies

The increasing customer demand for conductive floors has spurred on Indian manufacturers to seek highly innovative technologies for upgrading conventional ESD flooring systems. Traditionally in India, static dissipative and conductive floorings are produced with the use of carbon fibres, which provide acceptable results with only higher voltages. However, for low voltages in the range of 10V-100 V, carbon fibre technology is not consistent. It does not ensure uniform conductivity and the surface resistance also changes over time to a large extent. In contrast to carbon fibres, single wall carbon nanotubes provide floors with uniform and reliable electrical conductivity even at low voltages which is more in line with the newer standards, and the surface resistance remains uniform over time even with normal wear and tear.

## PIONEERING IN VARIOUS TYPES OF EXTERIOR FLOORING

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

Choosing of the type of exterior flooring for your commercial or residential area is quite entertaining and enjoyable but is not always a simple task. Your decision should go beyond aesthetic so it would be best to know a bit more of the technical aspect. We are going to focus on the two types of flooring that can be used for the exterior. With the intention of making this a little easier to understand, we will initially present five of the best and most popular types of outdoor flooring.

### List of five unique products for Exterior flooring:

- Coloured concrete resurfacer (5 to 10 mm)
- Stamped concrete / Patterned concrete
- Concrete floor with exposed gravel
- Resin-gravel floor (10 to 15 mm)
- Sports flooring

### Three major categories of Stamped Concrete / Patterned.

Stamping is a popular technique which can make concrete resemble a huge variety of attractive materials like flagstone, wood, or cobblestone - to name just a few possibilities - easily and affordably. Take a look at the possibility of beautifying your exterior with stamped concrete. Stamping is a decorative treatment for new concrete surfaces and certain concrete overlays.

Three major categories as follow:

- 1.) Stamped concrete (on green concrete).
- 2.) Stamped concrete (on old concrete).
- 3.) Coloured micro-topping.

It's usually intended to make concrete look less like concrete and more like natural stone, tile, brick, cobbles, or even hardwood planks. Standard stamping technique involves pressing a rubber-like stamp or mold into the surface of poured and smoothed concrete. After the stamp's removed, the concrete is allowed to cure, leaving a permanent impression. The key to successful stamped concrete lies not just in skillfully creating the impressions, but also in the tricky process of coloring. Application areas include Sit-outs, Drive-ways, Pool-decks, Pergolas, Patios, Spa-areas, Path-ways.



Hindu school, Hyderabad



Ravindra Bhavan, Goa

What is a Permeable gravel floor ?

Permeable gravel floor is a special resin bound aggregate surface for pedestrian and vehicular traffic. Permeable gravel floor are decorative and functional, seamless and slightly flexible. The formulated floor surface allows water to drain through to the base, eliminating water ponding and allowing water to drain. The surfacing may be applied to compacted soil or over permeable concrete. Edgings created from brick, stone, or steel should be installed to retain and protect the Permeable gravel floor. Permeable gravel floor is a two component polyurethane resin which binds a range of selected decorative kiln-dried gravels or pebbles. Permeable gravel floor provides an attractive porous surface which is strong enough for foot and light vehicle traffic.

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