

MAKING SENSE OF CONCRETE FLOORING

With the demand for decorative concrete floors on the rise it seems apparent that as demand increases, so does an individual's choice of alternatives. Concrete floors are increasingly becoming the material of choice and a design statement in their own right. Concrete is evolving as an artistic medium which provides unparalleled advantages in design flexibility, longevity, strength, low maintenance, hygiene and cost effective flooring.

These new trends have however, been coupled with growing uncertainty as to specifications, applications and quality and expectations of finished products.

So what alternatives do you have and which one will work best for you?

How do they look? How much will they cost and how good a job do they do of protecting your concrete floor?

There are currently three main methods of concrete floor finishing and protection currently on the market. Each of these has its own characteristics, advantages and disadvantages, they are:

1. Chemically resistant epoxy coatings, solvent based acrylics and moisture –cured urethanes, referred collectively as "high build/solids coatings" as well as water based "thin film coatings / sealers" such as Terrazzo polish.
2. Chemical hardeners and densifiers and finally,
3. HiPERFLOOR™

Film Coatings

Film coatings are shiny, colourful, very resistant to chemical attack and stains and generally resist dusting. While thin film coatings are durable by nature they are only temporary. Over time discolouration, scratches, chips and general wear take their toll. Until now, owners have had little recourse but to schedule periodic reapplications of these products. Due to the competitive nature of most industries, it is increasingly difficult to schedule time to maintain these floors. Working around sealers needing generally up to 1 week to fully cure before they can accept full traffic, as well as the potential exposure to toxic, odors associated with most of these products poses problems for most owners.

The longevity of such a floor is another question which is directly related to the conditions it is exposed to. In the norm one can expect a lifespan of between 2-5 years for film coatings. The rejuvenation of such coatings can involve as little as re-sanding and applying a topcoat or if the coating has deteriorated significantly, entire removal of the old coating and application of the new.

The cost of epoxy coating can be deceptive. Starting from around \$14 per square meter for the application, the cost of downtime, removal of fixtures and equipment needs to be added to this. It makes sense to run your calculations on a ten and thirty year maintenance program of repeating the same process over time, as well as including a significant amount for the charge of old coating removal and disposal.

Bottom line: Film coatings are great to look at and very durable in the short run. However the long term cost can be high and they are costly and difficult to remove and replace.

Liquid hardeners and densifiers such as HiPERFLOOR™ Hardener

Liquid hardeners and chemical densifiers change the molecular structure of the near surface wear zone of concrete making it denser and stronger. They can effectively eliminate dusting and create a relatively pleasing looking floor whilst maintaining the natural slip resistance of concrete. With regular cleaning the appearance of the floor can actually improve with wear and age. Although an improvement over bare concrete, densifiers do not deliver the shine of epoxy or urethane.

Since liquid hardeners do not leave a film, they are dependent upon the finish of the concrete for the final visual appearance. The importance of a flat and smooth surface is imperative if you choose this alternative for your floor. If your surface looks average to start with it will not change much over the course of the application of the product. Nevertheless a treated floor will prove to be a more hardwearing, maintainable surface with less tendency of dusting for a very long time when compared with film coatings which progressively wear thinner.

First time application is relatively inexpensive at around \$6m².

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HiPERFLOOR™

HiPERFLOOR™ is a new method employed by PRO GRIND AUSTRALIA for the grinding and polishing of old and new concrete floors. It is not only a method for protecting a concrete floor – in as much as a process for turning a concrete floor into a highly abrasion resistant, incredibly dense, smooth and visually appealing surface. HiPERFLOOR™ eliminates the need for epoxy or thin film coatings, guaranteeing a surface that can withstand even the toughest traffic.

Using the Husqvarna Construction Products HiPERFLOOR™ process, PRO GRIND offers a range of outcomes which can be achieved, depending on the purpose for the floor, all with the inherent benefits of strength, abrasion resistance, non-dusting, spill resistance that make HiPERFLOOR™ the new choice for concrete flooring.

These finishes can be categorized as being:

- Industrial finish ideally for use in a factory or industrial non-decorative situations
- Semi-gloss finish where a mirror-like finish is not required
- High-gloss finish producing an almost mirror-like floor.

Each of these alternatives can be created with a revealed aggregate or non-exposed aggregate finish.

The HiPERFLOOR™ process moves through a succession of steps of diamond grinding using progressively finer grit sizes, application of a liquid densifier and deep penetrating invisible sealer with final polishing and buff. The result is a smooth, glossy, durable and attractive HiPERFLOOR™.

With the durability and strength of up to 10 times higher than that of a standard polished concrete floor and incomparable advantages in abrasion resistance and non marking properties, HiPERFLOOR™ produces a floor exceptionally resistant to:

- Wear
- Dusting
- Marking, such as Forklift tyres
- Water, Industrial Chemicals, Oils, Food stains, Greases, Hydraulic fluids, Fuels, Fatty materials.
- Abrasion
- Heat

HiPERFLOOR™ can be used in new or old construction for manufacturing, warehouses, automotive factories and showrooms, retail, commercial and domestic environments.

Additional benefits of the HiPERFLOOR™ system include its odourless application and environmentally friendly properties (VOC free) promoting a healthier working environment with no immediate or continual toxic emissions. HiPERFLOOR™ can be installed without costly down time normally associated with epoxy and urethane coatings

HiPERFLOOR™ brings out the beauty of concrete and combines it with the unparalleled advantages of an easy maintenance. It eliminates the need for epoxy or thin film coatings will improve over age guaranteeing a surface that can withstand even the toughest traffic and add years to the expected life of the floor.

In essence HiPERFLOOR™ is a better floor at a lower cost.

Still not certain as to which product is best for you? Husqvarna Construction Products Australia offers its customers years of experience in decorative concrete and floor refurbishment. We understand your challenges, we are staffed to help you meet them, and we have the products and services that offer you superior finishes, great flooring alternatives, performance and value, time after time.

HUSQVARNA CONSTRUCTION PRODUCTS

Husqvarna Construction Products Asia Pacific. 25 - 31 Kinkaid Avenue, North Plympton, South Australia, 5037.

Tel: +61 (0) 8 8375 1000, Fax +61 (0) 8 8375 0990. www.husqvarnacp.com