Optima COATINGS

DATA SHEET

FLOORING

Duratop 425 HB PLUS

Duratop 425 HB PLUS is a heavy duty, high build, solvent free 3 component aggregate filled epoxy self levelling floor coating applied at thicknesses of 1mm to 4mm thick. The system imparts excellent colour stability, high gloss and non-blushing characteristics. When applied to the manufacturers specifications floors coated with Epoxy Topcoats will be non-porous and waterproof.

Colours: White; Pebble; Dark Cream; Light, Medium and Dark Grey; Terracotta; Red Oxide; Dark Green; Light Blue. Custom colours on request.

PRODUCT USES

Duratop 425 HB PLUS is an epoxy self levelling floor coating for general industry.
Specific applications include:

- Prisons, ablution blocks and walkways.
- Food processing plants.
- Hospitals and schools.
- Pharmaceutical and cosmetic environments.
- Wineries and other areas where abrasion resistance and chemical resistance is required.
- May also be used as a binder for abrasive grit to yield non-slip floor finishes.

ADVANTAGES

- Expert application. The product is installed only by trained and approved specialist contractors.
- Good protective qualities.
- Good resistance to chemicals.
- Reduces maintenance.
- Range of colours.
- Can be applied onto a variety of surfaces.
- Seamless and hygienic.

COVERAGE

As porosity and texture of concrete floors and cement paving vary considerably, it is not possible to quote accurate coverage rates, but the following will provide a guide:

- Percentage volume solids: 100%
- Recommended dry film thickness 1mm to 4mm thick applied in a single coat application
- Maximum theoretical coverage per 14,8kg kit (10 Litres): 10m2 @ 1mm thick per kit.

SURFACE PREPARATION

Proper preparation is critical to ensure an adequate bond.

- The surface must show open pores throughout with main aggregate in concrete exposed and have a sandpaper texture.
- Substrate moisture content should be below 5%.
- Concrete surfaces shall be 'visibly dry' with no standing water. The minimum tensile (pull-off) strength shall be 1.5N/mm² and concrete Shall have cured for at least 21 days. The minimum compressive strength shall be 20N/mm²
- Concrete design shall allow provisions for movement joints, as required. In addition, provision shall be made for induced joints to allow any shrinkage of the concrete to occur along defined planes.
- All laitance shall be removed.
- All imperfections such as holes and cracks shall be repaired and levelled with the mean level of the surface.

- For repairing surface unevenness, Duramortar concrete repair systems shall be used.
- The whole surface shall be enclosed or impact shot blasted, surface planed, ground or high-pressure water jetted.
- All high spots shall be removed.
- Surfaces shall be rendered 'visibly dry' by heat or mechanical means.
- Remove all loose material and dust by vacuum or mechanical means.
- Remove all oil, grease, etc. using a degreasing solution of OptiDegreaser.

APPLICATION

MIXING

- Under no circumstances are the supplied kits to be split. The epoxy base and activator (Part A and B) are to be mixed thoroughly together for at least 2 minutes before adding the aggregate (Part C). Empty entire contents of the activator into the base component. Mix thoroughly for 2 minutes with an impeller fitted to a variable speed drill. Slowly add the aggregate and mix slowly for a further 1-2 minutes ensuring a homogenous mix is achieved. Transfer mixed material into another mixing container, scraping the sides and bottom of the container and remix for another 1 minute. This step is critical to ensure complete cross-linking of components is achieved. Do not mix this product by hand.

PRIMING AND PATCHING

- Apply one coat or two coats, dependant on the porosity, of Duratop Universal Epoxy Primer or Duratop Universal SF Epoxy Primer at approximately 6-7m²/litre with a roller to seal pores and achieve a uniform gloss finish. Allow to cure for 8-12 hours before coating. If necessary, patch cracks and holes by filling with one of Optima's Durafix floor repair products or, if badly pitted, skim the surface with the edge of a steel trowel as a scraper coat, using Duratop 425 HB without the aggregate. Allow to cure and sand smooth before coating.

COATING

- Dependant on wear and surface finish requirements, apply by either method 1 or 2.

- Method 1:Flow Coat 1mm Notch Trowel Method (1 coat at 10m²/10 litre kit):
- Pour mixed material in a bead on the floor and rake out using a 3mm notch trowel, spreading evenly at a thickness of 1,0 – 1,5mm. If necessary, use a mohair or looped roller to even out undulations. Remove air and level by rolling with a spiked roller for up to 10 minutes after application. Spiked shoes can be used to walk onto the wet material.
- Method 2: Pour mixed material in a bead on the floor and rake out using a 3mm Tri-Glide spreader, pin leveller or a skeg leveller', spreading evenly at a thickness of 1mm or more. If necessary, use a mohair or looped roller to even out undulations. Remove air and level by rolling with a spiked roller forup to 10 minutes after application. Spiked shoes can be used to walk onto the wet material.

- NB: If cold conditions prevail, material is thicker and substrates should be warmed to allow for good flow out of material.

CLEANING

- Clean tools and equipment using Optima Coatings Xylene or MEK.

SAFETY PRECAUTIONS

- Wear gloves and eye protection during mixing and application.
- For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Optima Coatings Product Material Safety Data Sheet (MSDS)) for each component of Duratop 425 HB PLUS from our office or the Optima Coatings Technical Consultant.
- Skin contact: Wash thoroughly with soap and water.
- Eye contact: Flush immediately with water for 10 – 15 minutes and contact a physician.
  Respiratory problems: Remove affected person to fresh air immediately and contact a physician.
- Not for internal consumption.

TECHNICAL DATA

Pack Size	10 litre/14,8kg pack size
Number of components	Three part kit
Volume solids:	100%
Recommended D.F.T.:	Min: 1mm Max: 4mml
Spreading rate: (Theoretical)	10m2 /10Litre kit at 1mm thickness
Colour: White; Pebble; Dark Cream;Light, Medium and Dark Grey; Terracotta; Red Oxide; Dark Green; Light Blue. Custom colours on request.	Colour:
RESISTANCE	
Weather: Good (chalks)	
Temperature:	60˚C continuous and 80˚C intermittent

Acids: Resists splash, fumes or spillage of inorganic acids up to 30% concentration.
Alkalis: Resists splash and spillage of Ammonia up to 10% and splash, spillage and immersion of other alkalies.
Alcohols: Resists splash and spillage of alcohols e.g. Ethanol and Butanol
Petroleum products: Resists splash, spillage or intermittent immersion in Paraffin, Jet Fuel, Diesel Oil, Petrol etc
Solvents:Not damaged by spillage of aromatic and aliphatic solvents such as Xylene, Mineral Turps and Benzine.
Water and Salt solutions: Excellent resistance to spillage and immersion up to 60˚C
Mixing ratio: 5 Litres base to 1,5 Litres activator and 3,5 Litres aggregate by volume.
Thinning/clean up: Optima Xylene for cleaning, thinning not required
Application: Apply by brush or short mohair roller. Gel time or pot life is 45 minutes.
Substrate Temperature: min: 10˚C , max: 40˚C
Ambient Temperature:min: 10˚C , max: 40˚C
Relative Humidity: min: 30%, max: 85%
Do not apply when the surface temperature is less than 20˚C above the dew point.
Drying Time:Temperature Touch Dry Hard Dry Over Coating Time
25 ˚C 6-7 hours 24 hours 15 hours
Pot life: 35 minutes @ 25 ˚C for a 100 gram mix.
For detailed installation procedures, please contact your Optima Coatings Technical Consultant.

CURING
At normal temperature conditions the coating system can be exposed to light traffic after 24 hours. Excessive traffic, aqueous cleaning and exposure to aggressive chemicals should only take place after 5 -7 days when full cure has been achieved.

REFERENCE SAMPLE
A trial reference sample should be installed by the applicator prior to start of contract to ensure correct coverage and workmanship.

CLEANING
Regular cleaning, dry or wet mechanical scrubbing or hot flushing with detergents or detergent/sterilant product will enhance the floor's appearance andreduce soiling tendencies.

Technical details above are provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards using raw materials of superior quality. Consequently we believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that the user conduct their own suitability tests before use. To retain sheen and colour consistency of your paint, always make sure that the batch numbers are the same on all paint containers that you purchase.

Updated: March 2013 (this supercedes all previous publications)