

# Duracrete LD ESD 108

## 5C PU ESD flooring

### Description

Duracrete LD ESD 108 is a five component PU ESD flooring recommended for the most demanding application in the industry. Duracrete LD ESD 108 is a water based, polyurethane flooring system designed to provide an extremely abrasion and chemical resistant static dissipative floor topping. Duracrete LD ESD 108 is generally applied at a thickness of 2mm. Duracrete LD ESD 108 is available in limited colours.

### Uses

- Automobiles floors with heavy traffic movements.
- Waterhouses and loading docks
- Light and heavy engg. industries
- Hangars
- Chemical and fertilizer plants
- Foundries, iron and steel plants
- Steam cleaning areas in pharma
- Paints shops

### Key features

- Water based and hence VOC compliant
- UV resistant and can be used for exterior applications
- Fast setting
- Highly abrasion resistance
- Highly impact and chemical resistance
- More durable than most of the flooring systems
- Static dissipative

### Performance data

|                    |                    |
|--------------------|--------------------|
| Type               | : PU Concrete      |
| Mixing ratio (R:H) | : Pre-weighed kits |
| Finish             | : Matt             |
| Colour             | : Limited colours  |
| Pot life           |                    |
| ASTM D 2471        | : 8 -10 min        |
| Volume solids      |                    |
| ASTM D 2697        | : ≥ 98%            |

|                     |                                      |
|---------------------|--------------------------------------|
| Drying time         |                                      |
| ASTM D 1640         |                                      |
| Surface dry         | : ≥ 20 min                           |
| Tack free dry       | : ≥ 1 hrs                            |
| Hard dry            | : ≥ 24 hrs                           |
| Recommended thinner |                                      |
| Clean up            | : PUT 502                            |
| Shelf life          | : 6 months in the unopened container |

### Performance data

|                      |                               |
|----------------------|-------------------------------|
| Compressive strength | : ≥ 40 MPa                    |
| Bonding strength     | : ≥ 2 MPa for M20 grade       |
| ASTM D 4541          | : Concrete / Concrete failure |
| Hardness, Shore D    |                               |
| ASTM D 2240          | : ≥ 75                        |
| Abrasion resistance  |                               |
| ASTM D 4060          | : ≤ 50 mg loss                |
| Tensile strength     |                               |
| ASTM D 638           | : ≥ 8 MPa                     |
| Thickness            | : 2mm                         |
| Surface resistivity  | : $10^9 - 10^9$ ohms          |

### Chemical resistance

Duracrete LD ESD 108 offers excellent chemical resistance to varied chemicals: from acids to solvents. Duracrete LD ESD 108 is resistant to many chemicals commonly encountered in food and beverage industries such as 50% acetic acid (vinegar), 30% lactic acid (acids present in milk and dairy products), citric acids (acid present in citrus fruits and limes), oleic acids (organic acid formed by oxidation of vegetable and animal fats). A full list of chemicals resistant to Duracrete LD ESD 108 is available on request. Strong solvents may soften Duracrete LD ESD 108 on continuous immersion, but the film will regain its strength once the solvent is evaporated. A few substances will make stains on Duracrete floors on continuous exposure. It should be noted that discolouration is not termed as film failure. Staining can be minimized by effective cleaning.

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### Directions to use

Ensure that the CDS (Clean, Dry and Sound) test is conducted on the concrete. Surface preparation like grinding or shot blasting is done to achieve a surface profile of 150 - 200 microns. Apply Cipoxy 16 or Aquoxy 50 as primer and allow to cure for 8 hours. Affix self adhesive copper tape at every 10 meters. Apply the conductive coat of Aquoxy ESD and allow to cure for 4 hours. Duracrete LD ESD 108 contains 5 components viz resin, hardener, colour pack, carbon fibres and aggregates. Mix carbon fibres into resin and get uniformly dispersed. Add all other ingredients in the pack under slow agitation till a uniform consistency is achieved. Care is to be taken to ensure that the air is not being driven in the system/ Duracret ESD is applied by trowel to the specified thickness. Allow to cure for 12 hours.

### Packaging

Duracrete LD ESD 108 is available in pre-weighed kits containing resin, hardener, reactive aggregate, carbon filler and DPI. It has maximum shelf life of 6 months in the unopened containers.

### Storage and handling

The product should be stored in accordance with national regulations. It should be kept in a cool, well ventilated area, away from heat, direct sunlight, sparks and children. Handle with care. It contains inflammable solvents. Mix resin and hardener as per the recommended ratio. Use the mix solution within the pot life time.

### Health & Safety

Please refer to MSDS. Observe reasonable care and employ ordinary hygienic principles such as washing

the hands with soap and water before eating or smoking. It is recommended to wear gloves, goggles and nose masks while application. Incase of splashes on the skin, dampen the cloth with thinner PUT 503 and wipe the hands with the cloth. Wash then with soap and water. Dried film is non toxic. Incase of contact with eyes, rinse with plenty of water and seek medical advice. Incase of continuous exposure to vapour, the applicator should be immediately moved to get fresh air. The disposal of excess or waste material should be carried out in accordance with the local legislations

### Disclaimer

All information contained in this data sheet is given to the best of our knowledge but no warranty is made with respect thereto. This data sheet becomes invalid as soon as a new edition has been published. Please contact us for latest edition. Description and advice regarding Cipy's products are based on long term field and laboratory tests carried out by us. No condition of warranty is given covering the results from the use of materials in the circumstances of any particular application, because the storage, handling and application of the materials are beyond our control.

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