

# CP ESD 601

## Description

CP ESD 601 system is defined as a resinous static control flooring system that can dissipate static charges by grounding personnel, equipment or other objects contacting the floor surface. Formulated with static dissipative grade antistites to both reduce tribo electric charging and create a static dissipative surface, CP ESD 601 system safeguards sensitive electronic components during manufacture or service. In industries where static electricity can result in significant damage, injury and financial loss, CP ESD 601 flooring is highly recommended. It is a multilayered self levelling system that hardens to an attractive, high strength flooring which is 3X of concrete's strength. The system includes a primer, conductive middle coat and a self levelling top coat with antistites. CP ESD 601 is a static dissipative flooring system where the surface resistivity is within the range of  $1 \times 10^3$  and  $10^6$  ohms

## Uses

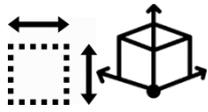
- ❖ Electronics manufacturing and electronic maintenance / repair shops
- ❖ Data processing/ computer facilities.
- ❖ Clean rooms.
- ❖ Aircraft hangers.

## Features & Benefits

- ❖ Higher mechanical properties than concrete
- ❖ Durable and low maintenance
- ❖ Constant level of conductivity
- ❖ Superior chemical resistance
- ❖ Available in attractive shades
- ❖ Meets EOS/ESD standard 7.1 or NFPA 99 A guidelines

## Properties

Product	<b>EPU epoxy-Polyurethane (highbred)</b>
Mixed ratio	<b>Pre weighed packs</b>
Finish	<b>Glossy</b>
Pot Life	<b>40 minutes @ 25°C</b>
Mixed Density	<b>1±0.1</b>

Adhesion to Concrete (ASTM D4541)	<b>&gt;3 Mpa (Substrate failure)</b>
Compressive strength ASTM D 695	<b>50 - 55 MPa</b>
Tensile strength ASTM D 638	<b>7-10 MPa</b>
Elongation ASTM D 638	<b>1.5 - 2 %</b>
Abrasion resistance ASTM D 4060	<b>60 - 65 mg loss</b>
Curing Time	<b>Initial Cure: 4 hours Full cure: 2-4 days</b>
Flexural strength ASTM D 790	<b>18 - 19 MPa</b>
Hardness, Shore D ASTM D 2240	<b>&gt; 85</b>
Surface resistivity ASTM F 150	<b><math>1 \times 10^7 - 1 \times 10^6</math> ohms</b>
Chemical Resistance (ASTM D1308)	<b>Excellent resistance is observed against distilled water, detergent solutions, alkalis and acids. Chemical spillages should always be wiped up as quickly as possible and not be allowed to concentrate up by evaporation. The data on the list of the chemicals found resistant to this product during our lab study is available on request...</b>
Theoretical consumption	<b>8-10 sqm/interdepending on substrate porosity</b>
	<b>PACK SIZES</b> <b>13.5 KG BOX/SET,</b>
	<b>SHELF LIFE</b> <b>12 months from date of manufacture if stored in shaded and dry area 25°C.</b>

# CP ESD 601

## Additional Information

### Application Methodology

#### ❖ Surface Preparation

The concrete floors should be minimum 28 days old and the moisture content should be less than 5% before application of ESD system. The concrete must be clean, dry and sound. For surface preparation of concrete, refer to SSPC-SP13/ NACE 6" surface preparation of concrete" for detailed guidelines. The entire surface should be roughened by abrasive blasting to remove all the laitance and obtain a surface profile of about 150-200 microns.

#### ❖ Priming and Screeding

The application of primer which forms an excellent bond with the concrete seals the substrate from moisture. It insulates against latent electrical properties in the existing floor, ensuring a neutral field on which the system is built up. The prepared surface shall be applied with two component epoxy primer CP prime 401 or 15 by roller with a spreading rate of 5 sq. m per liter to achieve 200 microns and allow it to dry for 8 hours. As per the system thickness, a screed layer is laid.

#### ❖ Fixation of Copper tape

This is to ensure that CP ESD 601 system is connected to a permanent earth ground to achieve an electrical Equi potential plane (EP). The ground couple is established over the primed layer with a conductive copper tape. (Ref "Standard for protection of electrostatic discharge susceptible terms- grounding recommended practice- EOS/ESD S6"). The self-adhesive copper tape is stuck at the peripheries of the floor and joined to the ground. All concrete slabs are electrically connected across expansion and control joints by fixing copper tape.

#### ❖ Conductive middle coat

This layer forms the electrical plane through which static charges are dissipated. Two component, Aquox ESD is applied by brush / roller at a spreading rate of 7.5 sq. m per liter to achieve a DFT of 100 microns. Allow the film to cure for 12 hours.

#### ❖ Self Levelling topcoat

Now apply CP ESD 601. CP ESD 601 is supplied in pre weighed packs. Empty the contents of resin, hardener, colorant, aggregates and antistes. Mix the mixture with the aid of a slow speed drill motor for 5-6 minutes. Pour the mix immediately on the floor and spread to a uniform thickness with a notched trowel. The surface is then deaerated with the aid of spike roller to dislodge Air pockets. The film is allowed to cure for 24 hours.

### 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

### Health and safety precautions

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. In case of splashes on the skin, dampen the cloth with thinner C+ CLEAN and wipe the hands with the cloth. Wash then with soap and water. Dried film is nontoxic. In case of contact with eyes, rinse with plenty of water and seek medical advice. In case of continuous exposure to vapor, 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

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