

MasterTop® 1230 ESD

Two-component Solvent-free EP Self-leveling ESD High Chemical Resistant Floor Overlay

DESCRIPTION

MasterTop 1230 ESD is a solvent free, conductive, two component epoxy resin based coating with high resistance to chemicals.

RECOMMENDED USES

MasterTop 1230 ESD is designed for use as coating for medium duty industrial floors in areas where a smooth and ESD (IEC 61340-5-1) surface is required: for example, electronic industry, cleanrooms, pharmaceutical and space industry etc.

FEATURES AND BENEFITS

- High resistance to chemicals
- Exhibits excellent mechanical strength and antistatic properties
- Abrasion resistant
- Good adhesion to non-porous substrates
- Easy to clean and maintain
- Easy to apply
- Extremely resistant to a variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels

PROPERTIES

Mixing ratio A:B	Parts by weight	13.5:2.7
Mixed density		1.75Kg/L
Viscosity	23°C	~2300cps
Pot life (16kg/drum)	20°C	~30min
Fully cured/ready for exposure to chemicals	23°C	7days
Substrate and application temperature	Min 15°C	
	Max 30°C	
Max. permissible relative humidity	80% RH	

ShoreD hardness	After 28 days	>75
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Resistance (Resistance to ground or Surface resistance)	Re.: ICE-61340-5-1 Test voltage: 100V	<1X10 ⁹ ohms
Person-foot wear-flooring system	Re.: ICE-61340-5-1	<1X10 ⁹ ohms
Walking test	Re.: ICE-61340-5-1	<100V

The above figures are intended as a guide only and should not be used as a basis for specifications.

APPLICATION

MasterTop 1230 ESD is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both A and B components to a temperature of approximately 15 to 25°C. Mixing Part A firstly. Pour the entire contents of Part B into the container of part A. Do not mix by hand. Mix with a mechanical drill and paddle at a low speed (ca.300rpm) for at least 3 minutes. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles. Do not work out of the original container. After proper mixing to a homogeneous consistency pour the mixed Parts A and B into a fresh container and mix for another minute. After mixing, MasterTop 1230 ESD is applied to the substrate coated with primer, using a notched trowel or scraper. The teeth size should be selected according to the thickness of layer required (take care not to exceed max. recommend coverage rate). To remove air bubbles, defoaming twice by spike roller, first time defoaming in 5min after application and the second interval 5min at 23°C ambient condition (If at low and high temperature condition, delaying or shortening interval time accordingly). The curing time of the material is influenced by the ambient, material and substrate temperatures. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time and curing times. High temperatures speed up the chemical reactions thus the time frames mentioned above are shortened accordingly. To fully cure, the material, substrate and application temperature should not fall below the minimum. After application, the material should be protected from

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direct contact with water for approx. 24h (at 20°C). Within this period, contact with water can cause a surface bloom and/or surface tackiness, both of which must be removed. Carbamate has a marked effect on the conductivity of the coating and has to be removed.

Substrate Pre-treatment

MasterTop 1230 ESD must be applied to substrates primed with primer. The substrate must be load bearing, free of loose and brittle particles as well as substances, which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants. All substrate must be either sand or grit blasted to remove laitance and friable surface matter. Pre-treatment is only necessary when there-coating interval of the conductive layer has been exceeded. If necessary, the conductive layer must be renewed. After surface preparation the tensile strength of the substrate should exceed 1.5 N/mm² (check with an approved pull-off tester i.e. 'Herion' at a load rate of 100 N/s). The residual moisture content of the substrate must not exceed 4% (check with e.g. CM device). The temperature of the substrate must be at least 3 K above the current dew point temperature. A damp proof course must have been properly installed and intact.

CONSUMPTION

1.5 – 2.5 kg/m² according to system thickness.

PACKAGING

MasterTop 1230 ESD is supplied in 16.2kg working packs.

CLEANING

During work the tools should be cleaned with the recommended cleaning agents. Likewise, tools should be thoroughly cleaned as soon as work has been completed.

COLOUR

MasterTop 1230 ESD is available in a range of colors. Consult your local sales office.

SHELF LIFE

Store in original containers, under dry conditions at a temperature between 15 - 25°C. Do not expose to direct sunlight and prevent the temperature from falling below the above mentioned range (crystallization). For maximum shelf life under these conditions, see "Best before..." label.

HEALTH AND SAFETY

In its cured state, MasterTop 1230 ESD is physiologically non-hazardous. The following protective measures should be taken when working with the material: Wear safety gloves, goggles and protective clothing. Avoid contact with the skin and eyes. In case of eye contact, seek medical attention. Avoid inhalation of the fumes. When working with the product do not eat, smoke or work near a naked flame. For additional references to safety-hazard warnings, regulations regarding transport and waste management please refer to the relevant Material Safety Data Sheet. The regulations of the local trade association and/or other authorities, regulating safety and hygiene of workers handling epoxy resins must be followed.

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