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Ref: ARTD 211

Altrostat SD

3mm Static Dissipative Self Flowing Epoxy Screed

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Issue 1

Product Description

FeRFA type 5

Altrostat SD is a three component, epoxy based material designed for in situ application at nominal 3mm, which produces a smooth, hygienic, seamless surface. Static build up is prevented by allowing the charge to harmlessly dissipate through the floor surface at a controlled rate.

Electrostatic charges occur when contact between solids, liquids and gases is made and broken. Any industrial process or activity which involves rubbing, shearing, brushing, lifting off, splitting, spraying or flow of liquids or powders, may generate hazardous static discharge. Apart from the risk of explosion in areas where combustible dust, volatile solvents and gases are present, static build up can create a number of detrimental effects:

Typical Areas Of Use

- Powder production areas.
- Blocking of plastic films and adhesion of fibres
- Attraction of dust
- Audio interference on recording media
- Uncontrolled deflections in measuring instruments
- Development of spark gaps on fast running tapes, belts and rollers
- Breakdown of electrostatic sensitive devices.
- Production Halls (Dry operations)
- Clean Rooms
- Warehouses
- Dry Storage Areas
- Plant Rooms
- Laboratories

Advantages

- Ease of installation
- Seamless
- Good Chemical Resistance
- Durable
- Ease of cleaning
- Good decontamination (certificated)

Suitable Substrates Include

Concrete, Granolithic, Performance Screeds.

Standard Colours

Dawn, Flint, Winter Grey, Black, Spruce, Jade, Cyprus, Patina, Gunmetal, Wedgewood, Sark, Indigo, Doe, Norfolk, Magic, Café Noir, Ramone, Tropic, Magenta, Wine Red, Cloud, Portland Grey, Toast, Ruby, Topaz, Safety Yellow, Ranch, Safety Red

Chemical Resistance

Altrostat™ SD affords good resistance to a wide range of commonly used chemicals. An extensive listing is shown in the Chemical Resistance Data Sheet ARTD 503. N.B. In all cases of chemical spillage, it is essential that the spillage be immediately removed and the surface washed down with water.

Substrate Requirements

Surfaces should be dry, structurally sound and of sufficient strength (minimum 26N/mm² compressive and 1.5N/mm² tensile strength) as well as being free from any contamination that may affect either the adhesion or penetration of Altrostat primer. All residues of old paint coatings, installation laitence and dust must be removed. Ensure that floors and walls have an effective DPM installed and that residual moisture does not exceed 5% by weight (75% R.H). BS 8203 1996.

Preparation

Detailed instruction sheet ref no. ARTD306 covering all application procedures is available on request.

Installation Conditions

Apply in well ventilated areas to the prepared primed substrate. **Ambient conditions should be maintained at least 3°C above dew point or below 75% RH during the initial stages of cure.**

Maintain application and subsequent cure temperatures between + 13°C to + 25°C. Never install on a falling thermometer below +5°C. (Min slab temperature +5°C). If lower temperatures are encountered, then the minimum of 7°C on a rising thermometer can be considered, but this will affect the application characteristics of the product.

Floor Joints / Detailing

Refer to Altro Resin Technical Department.

Coverage

Altrostat™ SD (3mm) – 4.2m²/20kg unit

Material usage is dependent upon temperature, surface profile and porosity; stated coverage rates should be referred to for guidance only and cannot be relied upon to determine exact quantities.

Overcoating Times

Minimum 12 hrs. Maximum 24 hrs.

If this time period is exceeded the surface should be lightly abraded and vacuumed before further coats are applied.

Properties

Application Temperature	15°C – 20°C
Gel Time (100g @20°C)	100 mins
Tack-Free time	8 to 10 hrs @ 20°C
Foot Traffic	48 hrs
Full Cure	7 days @ 20°C

Typical Physical Properties

Resistivity (Ohms)	5 x 10 ⁴ to 2 x 10 ⁶ (50,000 to 2,000,000)
Hardness/Shore D	83
Taber Abrasion (Average wear-mm/H22 wheel/1000revs).	0.03mm
Slant/Shear Bond Strength	16.3N/mm ²
Water Absorption (BS. 2782)	+0.14%
Resin Density (BS.6319)	1.87g/cm ³
Radiological Decontamination Factor 1323 (B.S. 4247)	Class: Excellent
Temperature of Deflection (B.S 6319 part 10)	49.1°C
Flexural Modulus of Elasticity (ASTM D790)	572 MPa
Tensile Strength BS.6319 part 7	14.35 N/mm ²
Compressive Strength BS.6319 part 2	68.8 N/mm ²
Slant/Shear Bond Strength BS.6319 part 4	16.3 N/mm ²

Packaging

Available in three part composite pack as follows. (Items in Italics are a requirement of the system, unless stated otherwise).

<i>Altrostat™ SD</i>	- 20 kg pack
<i>Altrostat Primer</i>	- 5kg kg units
<i>Altro Conductive Aggregate</i>	- 25 kg pack
<i>Altrostat Copper Tape</i>	- 16.46 l/metre roll

NOTE: Reference Mixing procedure and Application.

It is very important that the method of mixing, and timings are adhered to in accordance with our recommendations for the system to perform from both a resistive value and cosmetic appearance. At all times follow the detail in Data sheet ARTD 306. (Remember to always use the correct PPE).

Performance Testing (Resistivity)

Once laid and chemically cured, the system **MUST** be trafficked and cleaned in accordance with our recommendations. At least 7 to 12 days must have elapsed, and full trafficking and cleaning carried out before test readings are taken.

Cleaning (Tools And Equipment)

All tools and equipment should be regularly cleaned using Altrosolve EP to reduce build up and maintain the quality of the installation. Ensure that the correct PPE is worn at all times.

Storage

Ensure that the product is received in good order and store in a dry frost free environment, ideally between 15°C and 20°C for at least three days before laying. Excessively high and low storage temperatures will effect the laying performance of the product.

Disposal

Due diligence must be adopted if accidental spillages occur. Recover using absorbent granules, transferring into a suitably marked container. All empty containers and accidental spillages should then be disposed in accordance with the local waste disposal authority.

Associated Data Sheets And Further Information

- Surface preparation
- Application methods
- Chemical resistance chart
- Floor maintenance – resin based products
- Storage and Handling – resin based products
- Material Safety Data Sheets (COSHH)

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NOTE: "Altro Ltd" ("Altro") endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, where Altro has no control over the selection of its products for particular applications, it is important that any prospective customer, user or specifier, satisfies him/herself that the product is suitable for the intended application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/ applying/installing/curing of the material and when the completed work is to be brought into use. However, as site conditions and the execution of the work are beyond our control, we accept no resultant liability. Altro's policy is one of continuous research and development and we reserve the right to update our products and information at any time without prior notice.

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