



Globally Proven
Construction Solutions

Flow ESD Conductive

DS-FED01-0920

Flow ESD Conductive is a 2 components, solvent free, self-smoothing, high gloss anti-static epoxy finish. Its electricity resistance meets the requirement of conductive range in accordance to ASTM F150, IEC61340, BS 2050 etc.



FEATURES/BENEFITS

- Self-smoothing finish
- Seamless
- Gloss finish
- Low electricity resistance surface finish
- High abrasion resistance
- High impact resistance
- Non-staining finish
- Low maintenance

USES

- Electronics, microelectronics, automotive
- Pharmaceutical
- Aerospace
- Operation theatre
- AGV, robotic operating logistic center
- Explosives production line
- Storage and handling of flammable materials
- Computer, chips, circuit production cleanroom
- Semi — conductor / Circuits production
- Data Center

MANUFACTURER/ DISTRIBUTED BY

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Internet: se.laticrete.com

STANDARDS/CERTIFICATIONS

- ASTM F150
- ASTM D4541
- ASTM E303
- ASTM D4060
- EN 196-1
- ASTM D2240

Suitable Substrates

- Concrete
- Polymer Screed / Mortar
- Epoxy Mortar
- Epoxy Cementitious Vapor Barrier
- Self-compact concrete
- Properly prepared existing floor coating*

*Note: Further information to consult with LATICRETE Technical Department.

Packaging

Part A: 20kg

Part B: 5kg

Colour

ESD Green

Oceania Green

Coverage

One set of Flow ESD Conductive yields a coverage of approximate 12.0 – 13.0m² at 1.5mm thick per coat.

Note: The above data is theoretical, which obtained based on laboratory experiment in a near perfect situation and ambient condition. Actual coverage rates may vary depending on site conditions.

Shelf Life

The temperature of the storage area should be between 8°C and 32°C, avoid excessive heat and freezing of the material.

This product must be stored in its original packaging on pallets in clean, dry, ventilated areas, and out of direct sunlight.

Limitations

Substrate temperature must be between 10°C and 32°C. Substrate temperature must be 3°C above the dew point. Concrete moisture content must be below 4%. The relative humidity of the slab must not exceed 75% as tested per ASTM F2170 Relative Humidity in Concrete Slab test. If there is a moisture emission situation in excess of the above rate, use LATICRETE® Moisture Vapor Barrier.

Note: Prior to application, sound out existing substrate to identify any hollows or non-solid areas. All non-solid concrete should be removed and repaired. It is very important that the finished product is applied over sound, solid, and suitable concrete substrate and/or coating.

Cautions

Before using any LATICRETE product:

- Check se.laticrete.com for any technical bulletins or updated information about the product and its application
- Wear protective gloves, clothing, safety shoes, and eye wear
- May cause skin irritation

- May cause an allergic skin reaction. If rash occurs, remove individual from the work area and seek physician's care for dermatitis
- May cause serious eye irritation. In case of eye contact, flush with water for at least 15 minutes and consult a physician
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Do not attempt to wash and reuse it. This material can be removed with soap and water. Do not use acetone
- If swallowed, do not induce vomiting; call a physician immediately
- Keep out of reach of children
- Consult MSDS for more safety information

TECHNICAL DATA

Performance Properties

Working Properties		
Working time	< 45 minutes	
Mixing Ratio	4 Part A; 1 Part B by weight	
Density	1.4 kg/ℓ	
Test	Test Method	Results
Electricity Resistance	ASTM F150	$1.0 \times 10^4 \Omega - 9.9 \times 10^4 \Omega$
Pull-Off Adhesion Strength	ASTM D4541	>3.0 N/mm ²
Slip Resistance (BPN)	ASTM E303	Dry >90
Abrasion Resistance (mg)	ASTM D4060	33mg loss 1kg. 1000 cycles
Compressive Strength	EN 196-1	>50 N/mm ²
Flexural Strength	EN 196-1	>45
Hardness (Shore D)	ASTM D2240	80

Specifications are subject to change without notification. Technical data shown in product data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors. All recommendations, statements and technical data contained in this data sheet are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind. Satisfactory results depend upon many factors beyond the control of LATICRETE South East Asia Pte Ltd. User shall rely on their own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from their direct use, indirect use or consequential to their use of the product. LATICRETE shall not be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use or inability to use the product.

INSTALLATION SYSTEM

Surface Preparation

Concrete must be prepared mechanically to remove all surface contamination, laitance, loose particles etc. Use one of the following

tools to mechanically profile the concrete surface to achieve a homogenous texture:

- Diamond Grinding Machine
- Shot Blast Machine
- Scarifying Machine

The prepared surface should have a nominal tensile adhesion strength of 225 psi (1.6 MPa) as per ASTM D7234. Concrete must be tested for relative humidity (RH) prior to installation of any coatings. The RH of the slab must not exceed 75% as tested per ASTM F2170. If RH measures 75% or greater, Moisture Vapor Barrier may be used if the Moisture Vapor Emission Rate is not more than 3lbs./1000 ft²/24hr

Honeycombs or voids exposed due to mechanical preparation must be treated with the appropriate filler from our selection of complementary products.

Cracks & Joints

Inspect substrate to identify all moving and non-moving cracks/joints. Method of repair for moving cracks/joints should be designated by local onsite project engineer. All non-moving cracks/joints should be addressed and infilled prior to application of surface coating.

Application

Primer EP

Mix the pre-weighted Part A and Part B in a clean mixing container using a slow speed (<500 RPM) helical spinner mixer. Mix thoroughly for 1 – 2 minutes till homogenous the mix. Pour the mixture onto the prepared surface. Spread evenly using a rubber squeegee and back roll with medium roller. Ensure full coverage of the primer over the substrate. Apply 2 coats for porous surface. Leave it to cure for 7 – 10 hours depends on ambient condition.

Copper Tapes & Earthing

After the curing of Primer EP, apply self – adhesive copper tapes. Lay the copper tapes in grid and connect to an Earth point (via power socket or copper rod – at least 3 meter penetrates to ground) at every 100 m². For further information, please consult with Laticrete Technical Department.

Assess the electricity resistance using a Megger Insulation meter or equivalent; ensure all connections is well attached.

Primer ESD WB

Apply the Primer ESD WB subsequently after completing the copper

tapes / circuits. Mix the pre-weighted Part A and Part B in a clean mixing container using a slow speed (<500 RPM) helical spinner mixer. Apply the conductive primer, **Primer ESD WB** using a short pile roller onto the prepared surface. Allow it to cure for 8 – 12 hours depends on ambient condition. After curing, assess the electricity resistance on the cured surface. The test results should not be more than 5.0×10^3 Ohm (Ω) before proceed to the subsequent finish. Failing which, re-apply the Primer ESD WB.

Flow ESD Conductive

After the curing of Primer ESD WB, lay the **Flow ESD Conductive**. Mix the pre-weighted Part A and Part B in a clean mixing container using a slow speed (<500 RPM) helical spinner mixer for 1 – 2 minutes until the mix is homogenous colour.

Pour the mixture onto the primed surface, spread evenly using a clearance control notched squeegee and finished with a steel trowel. Apply spike roller after 3 – 4 minutes to release entrapped air. Do not apply spike roller after 5 minutes to avoid excessive roller imprints onto the epoxy finish.

Leave it to cure for at 24 hours before allowing pedestrian traffic. Mechanical service should be allowed after 48 hours. Chemical exposure can only viable after 7 days of curing.

Cleaning of Tools

Clean all tools and application equipment immediately after use with solvents and epoxy dissolver. Acetone may be used as a final rinse.

AVAILABILITY AND COST

Availability

LATICRETE and LATAPOXY materials are available worldwide. For distributor information, call:

Telephone: (65) 6515-3028

Fax: (65) 6515-3037

For on-line distributor information, visit LATICRETE at

se.laticrete.com

Cost

Contact a LATICRETE Distributor in your area.

WARRANTY

LATICRETE South East Asia Pte Ltd warrants that Flow ESD Conductive is free from manufacturing defects and will not to break down, deteriorate or disintegrate under normal usage for a period of one (1) year from date of purchase subject to terms and conditions stated.

MAINTENANCE

The long term performance, appearance, and life expectancy of wear surface products are critically dependence upon a good routine maintenance regime designed specifically for the installed wear surface.

TECHNICAL SERVICES

Technical Assistance

Information is available by calling:

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Technical and safety literature

To acquire technical and safety literature, please visit our website at

se.laticrete.com