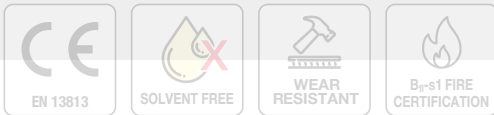


DUROGLASS P5/5 ESD

**SELF-LEVELING COATING FOR CONCRETE FLOORS
BASED ON EPOXY RESINS AND ALIPHATIC AMINE HARDENERS,
SPECIFIC FOR ESD ENVIRONMENTS**



CHARACTERISTICS

Electrostatic properties tests according to IEC 61340-5-1 , performed at EL.BO. Service, test report E-1808-036-E dated 06/08/2018 .
Made with special resins and high-resistance mineral fillers.
Electrically conductive : electrostatic charge to people < 30 V.
Excellent flexibility, hardness, resistance to wear and traffic with rubber wheels.
Good hardening speed .
Excellent mechanical characteristics and wear resistance .
Good chemical resistance to acids and alkalis, detergents, fuels, mineral, animal, and vegetable oils and fats. Suitable for use in food environments.
It helps obtain credits for LEED certification .
It meets the requirements of standard 13813 for synthetic resin-based screeds.

APPLICATION TEMPERATURE

Applicable starting **from +15° C** of the substrate and relative air humidity < 60%.

OPERATING TEMPERATURE

Operating temperature **from -15° C to +80° C**.

FIELDS OF USE

Protective layers on concrete floors, ideal in areas where low electrostatic charge and dissipative surfaces are required such as:

- Electronics industry
- Pharmaceutical industry
- Warehouses and storage facilities

Particularly suitable for areas where sophisticated and delicate electronic equipment or ATEX environments are used, for example:

- Computer rooms.
- Aircraft maintenance.
- Battery charging areas.
- High-risk explosion areas.

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PREPARATION OF THE LAYING PLACE

- The surfaces to be treated must be **sound, compact, and free of dust** and foreign matter (dirt, oil, grease, release agents, etc.).
- The cementitious substrate, after adequate mechanical preparation, must have a surface **tear strength greater than 1,5 MPa**, measured using suitable equipment.
- For ceramic substrates or old resin coatings, after adequate mechanical preparation, proper adhesion to the substrate and the **absence of traces of contaminants** must be verified.
- Deteriorated joints, holes, and other irregularities must be adequately smoothed and repaired with epoxy grout such as **STARCEMENT 385**, or epoxy mortar such as **DUROGLASS P1/2** adequately filled with quartz or **ADDENSANTE NT2**.

It is essential to roughen and/or wash the surface before installation. The mechanical preparation method (pressure washing, sanding, smoothing) should be chosen based on the substrate condition and the type of coating to be used.

It is always essential to apply a conductive adhesion promoter, which can also fill any macroporosity (blowholes) in the substrate to prevent imperfections in the coating.

The adhesion promoter will be chosen based on the type of coating and the substrate's humidity:

Smooth and even surfaces: apply **DUROGLASS AS**, a two-component product mixed just before use and diluted with 5-10% water by brush or roller at a rate of 0,2-0,25 kg/m². The minimum interval between overlaying the self-leveling product must be at least 16 hours.

Surfaces requiring smoothing: apply **DUROGLASS AS**, a three-component product mixed at the time of use in the pre-measured proportions. Use it as is or diluted with 2-3% water by trowel at a maximum rate of 1-1,5 kg/m² per coat.

The minimum interval between coats must be 16 hours, while the minimum interval between overlaying the self-leveling compound must be 48 hours after the last coat.

Surfaces requiring a conductive grid: always prepare by smoothing with **DUROGLASS AS** as indicated above. The conductive grid must have a 50x50 cm mesh, obtained by gluing self-adhesive copper strips manufactured by 3M to the surface, and must be earthed. The strips must be applied to the well-cured skim coat (minimum 48 hours) and pressed onto the surface with rollers or semi-hard rubber spatulas, avoiding any loose areas. For safety, after installing the grid, skim the strip line with **DUROGLASS AS**, allowing it to harden for 24 hours before applying the self-leveling compound.

Non-conductive substrates: The system can also be applied to non-conductive substrates such as tiles, marble, and adherent resin coatings. In these cases, it is essential to prepare the surface by shot blasting, skimming, and applying the conductive grid.

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PRODUCT PREPARATION

This **three-component product** must be mixed thoroughly before use. Thoroughly mix component A (resin) for a few minutes, then pour component B (hardener) completely into the container containing component A and mix until completely blended.

Then add component C (carbon fibers) and mix for another 2 minutes until blended. We recommend using a drill and a stirrer with a speed of 300/400 rpm.

The three separate components will look like this:

- Part A: Colored liquid resin.
- Part B: Clear liquid hardener.
- Part C: Carbon fibers.



PRODUCT APPLICATION

DUROGLASS P5/5 ESD can be applied with:

- Notched spatula

DUROGLASS P5/5 ESD must be applied carefully, distributing the desired amount evenly, with an approximate consumption of 2–4 kg/m².

Immediately after application, it is advisable to repeatedly pass the roller over the resin to eliminate any air entrapped in the resin during mixing.

The maximum thickness of the self-leveling coating must be 1,5 mm.

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WARNINGS AND PRECAUTIONS

- DUROGLASS P5/5 ESD must be applied at substrate temperatures certainly above +10°C, as it may cause staining due to spilled water or aqueous solutions.
- After curing, thoroughly clean with a rotary brush and detergent, followed by rinsing and drying. Best results are achieved with mildly abrasive detergents.
- Due to the nature of the carbon fibers that provide conductivity, exact color matching is not possible.
- Direct exposure to sunlight may cause discoloration or color changes; this does not affect the conductivity of the coating.
- Before installing the ESD-certified conductive system, it is recommended to perform a test application on a reference area, which will be examined and approved by the client.

SAFETY AND CLEANING

When applying these products, it is recommended to wear safety glasses, masks, rubber gloves, and all other PPE required by current regulations.

Work tools must be cleaned with **DILUENTE 21** after use.

For more information regarding precautions for use, please refer to the safety data sheet.



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TECHNICAL DATAS		
Color		RAL folder, matt
Specific weight	UNI EN ISO 2811-1	1,31 ± 0,05 kg/l
Mixing ratio		100 parts by weight of comp. A 35 parts by weight of comp. B 100 parts by weight of comp. C
Viscosity at +20° C	EN ISO 2555	3700 ± 800 mPas
Durata in vaso +22° C	UNI EN ISO 9514	50 minutes
Indurimento a +22° C, 50% U.R.		<ul style="list-style-type: none"> • Dry to the touch: 4-6 hours • Carefully walkable: 48 hours • Fully cured: 10 days
Non-volatile substances	EN ISO 3251	99%
Compressive strength	EN 13892-2	> 85 MPa
Bending strength	EN13892-2	> 30 MPa
Abrasion resistance H22 wheel, 1000 g, 1000 rpm	UNI EN ISO 5470-1	< 100 mg
BCA wear resistance	EN 13892-4	0 µm
Impact resistance	EN ISO 6272	20 Nm
Adhesion force	EN 13892-8	> 3,0 MPa
Shore D hardness	EN ISO 868	> 85
Ground resistance (dry)	IEC 61340-5-1	R _G 5,7 10 ⁵ Ω
System resistance	ANSI S.20.20	R _S 2,4 10 ⁷ Ω
HBV (Human Body Voltage) *		HBV < 25 Volt a 48,2 % di U.R.
Chemical resistances	EN 13529	Hydrocarbon mixture: Class I 20% sulfuric acid: Class II 20% sodium hydroxide: Class II Surfactants: Class I
Storage		The product, stored in its original sealed packaging in a dry, protected place, at temperatures between +5° C and +35° C, has a shelf life of 12 months.

* The HBV test must be performed with ESD-certified footwear. The measuring equipment must be compliant with the standards. Floor cleanliness and the people performing the test have a significant impact on the measurement results.

The data and specifications contained in this data sheet, based on the best practical and laboratory experience, are to be considered indicative in any case. Given the different conditions of use, and the intervention of factors beyond MPM's control (substrate, environmental conditions, technical installation instructions, etc.), anyone intending to use it is responsible for determining whether the product is suitable for the application. Our guarantee obligation is limited to the quality and consistency of the finished product for the data reported above, only for technical data sheets accompanied by a stamp and countersignature by authorized personnel at our headquarters. The customer is also responsible for verifying that these values are valid for the product batch in question and have not been superseded and/or replaced by subsequent editions and/or new formulations. The data contained herein may change at any time without prior notice from MPM.