vebro polymers

vebro PU ESD SL (Conductive) (2-Pack)

vebro PU ESD SL (Conductive) is a crack-bridging, pigmented, solvent-free, low emissions, static conductive, self-smoothing polyurethane floor coating system, designed to safely ground electrostatic discharge when used in an ESD control flooring system.

vebro PU ESD SL (Conductive) is typically applied in one coat as a self-smoothing system in both fire protection areas and explosion proof zones.

vebro PU ESD SL (Conductive) is used in scenarios where static control is critical but the substrate is subject to movement, vibration, or thermal cycling, ensuring long-term conductivity and durability without cracking or delamination.

Component	Weight
vebro PU ESD SL (Conductive) (Part A)	20.0 kg
vebro PU ESD SL (Conductive) (Part B)	5.0 kg
Total Unit:	**25.0 kg**

Density

Mixed Unit: 1.40 kg / ltr

Unit Weight

25.0 kg (17.85 ltr)

Mix Ratio

A:B = 4:1

Coverage

Dependent on specification, see *System Data Sheet*

HS Code

(Part A) 3907300080

(Part B) 2921290090

Consumption

The recommended consumption of **vebro** PU ESD SL (Conductive) is 1.25 – 3.75 kg / m^2 when used a self-smoothing system. .

Working Time

~25 minutes @ 20°C (usable working life of material following mixing and immediate spreading as per the application instructions).

Overcoating Time

~24 hours @ 20°C (some mechanical preparation may be required if outside of this window).

Speed of Cure

- Light Foot Traffic – 24 hours
- Light Wheeled Traffic – 48 hours
- Heavy Duty Traffic – 72 hours
- Full Chemical Cure – 7 days

Storage

All components should be stored off the ground, in a cool dry area, away from direct sunlight between 5 – 35°C.

Shelf Life

12 months when stored as described.

*These coverages are theoretical and may vary due to a number of factors including the condition of the substrate. It is the applicator's responsibility to ensure the substrate has been surveyed and tested. A recommended 5% wastage addition is advised on all orders.

vebro PU ESD SL (Conductive)

Electrical Resistance Properties

Technical Property	Result
Resistance to Earth EN 61340-4-1	$R_G < 10^9$ Ω *(23°C / 50% RH)*
Resistance to Earth EN 1081	$10^4 – 10^6$ Ω *(23°C / 50% RH)*

Substrate Requirements

All substrates should be capable of bearing loads, free of cracks and voids as well as free from laitance, dust and other contamination including dirt, oil, grease, coatings, and surface treatments.

The substrate should be sound with a minimum compressive strength of 25 N/mm² and a minimum tensile strength (pull-off) of 1.5 N/mm². The concrete substrate must be a minimum of 28 days old and the residual moisture content must be a maximum of 4% CM.

Where the concrete substrate is in contact with the ground, an effective damp proof membrane should have been incorporated into the slab design.

Substrate Preparation

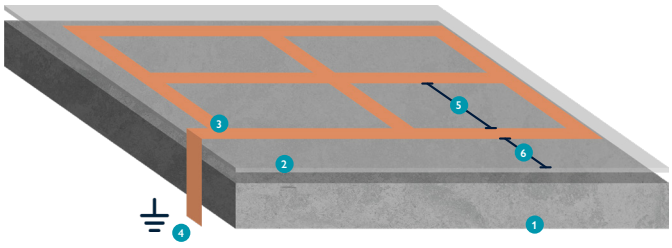
Substrates should be mechanically prepared using captive vacuum enclosed shot blasting or diamond grinding, to remove surface cement based laitance and previous surface treatments leaving an open textured mechanically prepared surface.

Weak concrete / polymer modified screed must be removed and repaired using recommended Vebro Polymers' products. Imperfections in the concrete (holes and cracks) should be filled using Vebro Polymers' epoxy patching compound.

Earthing Points Layout

Apply min. 10.0 mm wide copper tape around the perimeter of the area, 1.0 m from the walls. Apply a 3-metre grid of copper tape within the perimeter tape, as shown on the diagram below. Connect the copper tape grid to earth.

Note: connecting to earth must be carried out by a qualified electrician



1 Prepared substrate
2 Primer
3 Copper tape
4 Earth *(see table)*
5 3.0 m centres
6 1.0 m to edge

Floor area	Earth Points
> 400 m²	2
> 600 m²	3
> 800 m²	4
> 1000 m²	5

Application Instructions

Priming

The material must be laid on a suitably primed substrate followed by earthing points as laid out on the corresponding grid and a suitable epoxy conductive primer, such as **vebro** EP ESD Primer.

Install the **vebro** PU ESD SL (Conductive) within 24 hours of laying the **vebro** EP ESD Primer layer.

Mixing

The contents of the **vebro** PU ESD SL (Conductive) (Part A) should be mixed for approximately 2 – 3 minutes.

The contents of **vebro** PU ESD SL (Conductive) (Part B) should be drained into the **vebro** PU ESD SL (Conductive) (Part A) component and the two materials thoroughly mixed at speed of 350 rpm for two minutes

The mixed liquid should then be poured into a clean suitably sized separate mixing container and mixed for a further 1 – 2 minutes.

vebro PU ESD SL (Conductive)

Colours

G glorious greys *(recommended selection)*

RAL 7037
Dusty Grey

RAL 7004
Signal Grey

RAL 7001
Silver Grey

RAL 7040
Window Grey

RAL 7046 Telegrey 2

RAL 7024
Graphite Grey

Please note, the applied colours may differ from the examples shown. Epoxy materials may exhibit a yellowing effect over time resulting from thermal, UV or chemical exposure. This will be more pronounced on light grey or blue shades, Colours outside of our standard range may incur an additional supplement. The manufacture of epoxy flooring is a batch process and despite close manufacturing tolerances, minor variations in shade may occur between batches.

Application
vebro PU ESD SL (Conductive) should be poured onto the surface and spread over the entire area using a notched squeegee at a rate of 1.25 – 3.75 kg/m^2 before being back-rolled with a spike roller to a self-smoothing gloss finish.

Don't forget!
Applicator crew members should wear spiked shoes to walk on the coating while still wet!

Broadcast with **vebro** Natural Quartz (0.7 – 1.2 mm) while the SL coating is still wet if seeking a slip-resistant textured finish. Once cured, seal the anti-slip profile with one coat of **vebro** PU ESD SL (Conductive) at 0.55 – 0.80 kg / m^2

Overcoating
Overcoating should be carried out within 24 hours of application. If longer than 24 hours it will be necessary to lightly grind the surface by mechanical means before overcoating is carried out.

UK CA CE 24

Supplied by:	**Vebro Polymers UK Limited,** *Argyle House, Stanley Green Trading Estate, Epsom Avenue, Handforth, Wilmslow, Cheshire, SK9 3RN, United Kingdom*		
Harmonised Standard	EN 13813:2002 (System 4)		
Intended Use:	Synthetic resin screed materials for use internal use		
Reaction to Fire	B_{fl}-s1	***Release of Corrosive Substances***	SR
Wear Resistance	AR1	***Bond Strength***	>B1.5

Further Information

Information relating to the safe handling of this product can be found in the Material Safety Data Sheet. Local regulations concerning the safe handling of resin based coating materials must be observed. Suitable protective clothing including eye protection must be worn at all times.

All consumptions listed are for recommendation purposes only. Detailed application instructions and system build-up advice can be provided on request through our Technical Services team.

Vebro Polymers' systems and products are guaranteed against defective material and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which can be obtained on request.

Vebro Polymers accepts no responsibility for liability claims based on the suggested practises and data values listed on product data sheets. Product data sheets are regularly updated and it is the user's responsibility to ensure they obtain the most recent version. The most recent versions can be found at ***www.vebropolymers.com***

for chemistry you can count on…
Argyle House, Stanley Green Trading Estate, Epsom Avenue, Handforth, Wilmslow, Cheshire, SK9 3RN, United Kingdom
w: vebropolymers.com | e: hello@vebropolymers.com | t: +44 (0) 1618 738 396