

Flowprime ESD is a two-component, solvent-free, conductive primer based on waterborne epoxy technology. Flowprime ESD is used as a conductive primer for anti-static and electrostatic dissipative systems such as: Flowdur HF AS, Flowdur SL AS and Flowepoxy ESD.



Roller-applied



Conductive



Easy to Apply

### Colours

Standard grey.

### Appearance

Seamless, smooth finish. Applied in 2 coats.

### Advantages

- ✓ Low viscosity / easy to mix and apply
- ✓ Long pot-life
- ✓ Conductive
- ✓ High solids

### Pack Size

2.5 and 10 kg units.

### Components

Flowprime ESD Primer comprises of: one part Resin and one part Hardener.

### Suitable Substrates

Thoroughly prepared concrete, polymer modified sand and cement screeds, steel, brickwork, block work and timber.

### VIRTUS RESINS

The Shippon, Faenol  
Pentrecelyn  
Ruthin LL15 2SP

**Tel:** 01978 790 744

**Tel:** 0843 289 8422

**Email:** [info@epoxyresinsuppliers.co.uk](mailto:info@epoxyresinsuppliers.co.uk)

**[www.epoxyresinsuppliers.co.uk](http://www.epoxyresinsuppliers.co.uk)**



**virtusresins**  
Epoxy resin suppliers

## Typical Properties, 28 days at 20 °C\*

Mixed density 1.2 g/cm<sup>3</sup>  
Solids content 48% by volume

\* The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary dependent upon site conditions.

## Cure Schedule at 20 °C

Working life of full packs*	45 minutes
Finished floor**	
Over-coating time	12-48 hours
Full cure	7 days

\* Usable working life of material following mixing and immediate spreading as per the application instructions.

\*\* The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions. Higher temperatures will shorten working time and lower temperatures will extend cure times.

## Pack Size

2.5 kg and 10 kg units.

## Coverage\*

250 g/m<sup>2</sup> per coat. Coverage will be reduced by rough, porous substrates and low temperatures. Coverage varies widely due to the porosity and profile of different substrates. As a guide:

Rough porous concrete - 175 g/m<sup>2</sup>  
Average finish - 125 g/m<sup>2</sup>  
Smooth finish - 100 g/m<sup>2</sup>

\* Coverage figures given are theoretical. Practical coverage rates may vary due to wastage factors and the type, condition, profile and porosity of the substrate.

## Surface Preparation

The concrete substrate must be at least 28 days old, sound with a minimum compressive strength of 25 N/mm<sup>2</sup> and a minimum pull off strength of 1.5 N/mm<sup>2</sup>. The substrate must be clean, dry with a moisture content less than 5% (75% RH) and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. The substrate should be free from rising damp and ground water pressure and contain a functional damp proof membrane. Inadequate preparation will lead to loss of adhesion and failure. Grinding, vacuum-contained shot-blasting or planing is recommended depending on the final finish to be applied. Percussive scabbling or acid etching is not recommended. Refer to the **Virtus Guide to Surface Preparation** for further information.

## Application Conditions

Ideal ambient and substrate temperature is 15 - 25 °C. Localised heating or cooling equipment may be required outside these parameters. The atmospheric relative humidity should be below 70% and good ventilation should be provided to aid the removal of water and maintain curing times. The substrate and uncured floor must be kept at least 3°C above the dew point to reduce the risk of condensation or blooming on the surface before, during and directly after application.

## Priming

Flowprime ESD must be applied to surfaces pre-primed with Flowprime SF which has been allowed to cure. Apply evenly using a medium pile roller or brush. Do not exceed the coverage rate of 4 m<sup>2</sup> /kg. Do not pour directly onto the substrate as this may result in thick patches. Use a 1" paintbrush to work material into earthing and bridging points ensuring good contact. When cured, the resistance to earth as measured by the chosen test method should be 5 x 10<sup>4</sup> ohms or less. This test must be carried out and logged. If, when cured, there are glossy or bare patches, a further primer coat is required. Allow to cure for a minimum 12 hours at 20°C. If the primer has been left to cure for >48 hours then the primer surface should be mechanically abraded and the area re-primed.

## Mixing

Flowprime ESD is a two-component product. Fully drain the contents of the hardener component into the resin component and mix thoroughly with a low speed electric mixer (300 - 400 rpm) for a minimum of 3 minutes scraping sides and bottom of container until homogeneous. Pour the material into a fresh container and mix for a further minute.

## Application

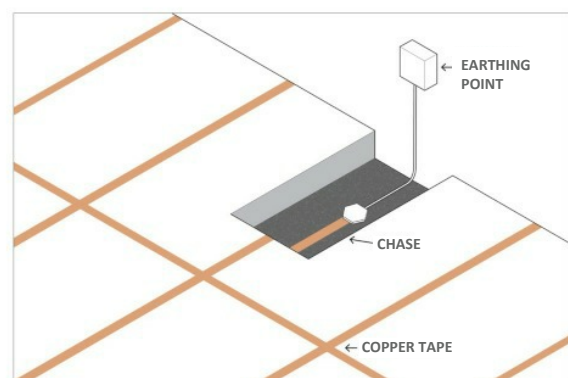
Once mixed the primer should be applied immediately in a thin continuous film. Work the primer into the surface using a stiff brush or roller avoiding pooling. On porous surfaces Flowdur ESD PRimer will be absorbed very quickly leaving dry patches. A second coat should be applied to these dry areas to ensure good adhesion and reduce the possibility of air release from the substrate causing bubbles or pin holing in the final topping.

## Earthing

It is recommended that each individual slab is either connected to each other by bridging or each individual slab be directed to earth. The use of copper tape is recommended for this purpose. As a general rule, apply copper tape at maximum 4 metre centres ensuring that no part of the floor is more than 2 metres away from copper tape.

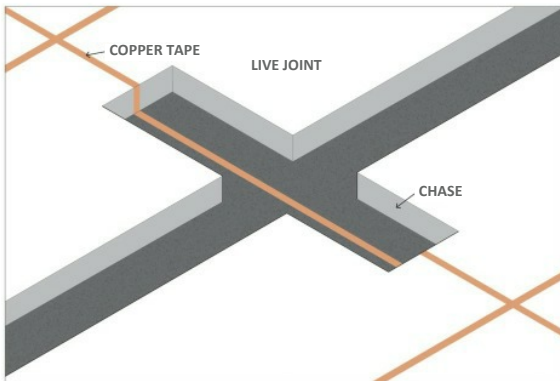
### Connection to Earth

1. Prime floor surface using Flowprime SF.
2. When primer is dry, bond the copper tape to the primed concrete and connect the end of the tape to suitable earth points.
3. Overcoat to top of tape with Flowprime ESD.
4. When primer is cured, apply the final finish.



## Bridging Live Joints

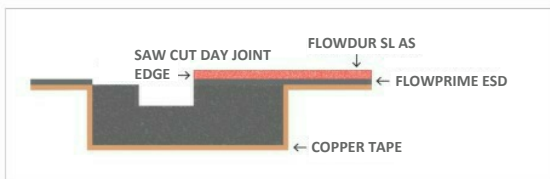
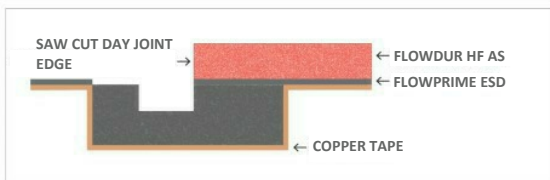
1. Prime the floor surface with Flowprime SF.
2. Apply copper tape either side of the joint ensuring that the tape within the joint is looped at least 20 mm below floor level. Fill the chase with a suitable repair product.
3. Overcoat the exposed copper tape with Flowprime ESD.
4. Fill the top of the joint with closed cell polythene backer rod and overlay the joint completely with the final finish ensuring that the path of joints is clearly marked.
5. When cured, saw cut out the topping - replace the rod at required depth and seal the joint with suitable joint sealant.



## Day Joints

On large areas, it may be necessary to incorporate a day joint or suspend the laying operation due to project scheduling. In this case, the floor should be treated as follows:

1. Saw cut a 5 mm wide x 10 mm deep chase into the floor for a distance of 50 mm either side of the proposed day joint.
2. Apply copper tape to the primed floor leaving a leading strip into the next bay then apply Flowprime ESD and the final finish to the edge of the day joint. Fill the chase as necessary.
3. Saw cut the exposed edge of the final finish when ready to recommence work then apply Flowprime ESD and the topcoat to the new area. Ensure that the top surface of the leading copper tape is clean before applying Flowprime ESD.



## Health and Safety

Before using this product, please ensure that you have received and read the product Safety Data Sheet. Please refer to the latest revision of the safety datasheet.

## Tool Cleaning

Tools should be cleaned promptly with Flowsolve.

## Storage

Flowprime ESD has a shelf life of 12 months if stored off the ground in unopened packs in a dry store under cover at temperatures between 15 and 25°C. Protect from frost.

## Shelf Life

12 months if stored in accordance with the above recommendations.

## Limitations

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be > 85% or if the surface temperature is <3 °C above the dew point. Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be <10°C during the application or within the curing period.

## You Might Also Need:

- Flowprime SF
- Mixing Drill Attachment
- Resin roller

**Note:** The information contained in this document, and all further technical advice given is based on our present knowledge and experience. However, it implies no liability or legal responsibility on our part. In particular, no warranty or guarantee of product performance in the legal sense is intended or implied as the conditions of use and the competence of any labour involved in the application are beyond our control. Properties listed are for guidance purposes only. We reserve the right to make any changes according to technological progress or further developments

Virtus Resins, The Shippon, Pentre-Celyn, Ruthin LL15 2SP, England			
CE	13	DOP RV0088	
EN 13813 SR-B2 Synthetic resin floor screed material for internal uses subject to reaction to fire regulations			
Reaction to fire	E <sub>fl</sub> <sup>(1)</sup>	Impact resistance	NPD
Release of corrosive substances	SR	Sound insulation	NPD
Water permeability	NPD	Sound absorption	NPD
Wear resistance	NPD	Thermal resistance	NPD
Bond strength	B2,0	Chemical resistance	NPD

(1) According to Commission Decision 2010/85/EU of 9 February 2010, the product satisfies all the requirements of the performance characteristic 'reaction-to-fire' class E<sub>fl</sub> without need for further testing.