



# Resustat ESM

Revised 05/2018 Issue 1—REF : RESM

## DESCRIPTION

Resustat ESM is a static-dissipative resin based flooring system which is installed at 3 mm nominal thickness. The formulation comprises of a unique blend of conductive fillers blended with selected epoxy resin components & pigments to provide an attractive and decorative finish. The product is also free from crystalline silica improving the H&S aspect for users. The Resustat ESM flooring system has an electrical conductivity leakage resistance of  $<10^9$  ohms when tested to BS EN 61340-4.

## ADVANTAGES

- Static-dissipative seamless finish
- Silica free
- Hard wearing durable floor for industrial use
- Ease of application
- Hygienic
- Excellent abrasion and impact resistance
- Good chemical resistance
- Smooth finish for precise operation equipment

## RECOMMENDED USES

- Pharmaceutical production
- Electronic industrial areas
- Television studios
- Operating Theatres
- Domestic studios
- Industrial workshops
- Chemical Plants

## PRODUCT INFORMATION

<b>System Thickness (Recommended)</b>	2-3mm
<b>Solids Content by Weight</b>	100% solids by weight
<b>Pack Sizes</b>	30 Kg
<b>Pack Make Up</b>	1 x Base 1 x Hardener 1 x Aggregate
<b>Shelf Life</b>	12 months (Base, Hardener & Aggregate)
<b>Storage</b>	Keep out of direct sunlight. Store in a dry place, between 15°C- 30°C.

## APPLICATION INFORMATION at 20°C

<b>Coverage Rate (Theoretical)</b>	30 Kg will cover 7.5m <sup>2</sup> at 2mm thickness or 5m <sup>2</sup> at 3mm thickness *Coverage rate is calculated based on a sealed and smooth surface and may vary based on the substrate roughness and other conditions.
<b>Pot Life</b>	25-30 Minutes
<b>Recoating Intervals</b>	N/A
<b>Light Traffic</b>	24 hours
<b>Full Traffic</b>	72 hours
<b>Full Chemical Cure</b>	7 Days



## Specification

**Product :** Resustat ESM

**Finish :** Smooth gloss

**Recommended thickness range:** 2-3mm

**Colour :** Available in a range of colours, please consult Sherwin-Williams

## Products required for this system

**Primer :** Resuprime NT or R.S. Dampshield on damp surfaces, where required. Followed by Resustat Primer.

**System :** Resustat ESM

## Preparation

**New Concrete Floors:** New concrete must be clean, sound, dry, fully cured and surface laitance removed by vacuum enclosed shot blasting or mechanical grinding, a minimum strength of 25N/mm<sup>2</sup> is required.

**Existing Concrete Floors:** Remove all dirt, oil, grease, old paint or any other surface contaminants by vacuum enclosed shot blasting, scarifying or mechanical grinding. Fats, oils or greases must be removed by mechanical means and detergent washing and make sure all residue of detergent is washed and removed by rinsing with clean water. Local repairs should be carried out using Resupatch.

### Existing Floors ( previously coated )

All previous coatings and loose floor paints must be removed by mechanical preparation as described in the above section and primed as specified. If the old resin flooring cannot be removed, then please consult with our technical team for advice on intercoat adhesion and suitability, as it may not be compatible with existing floor coating.

## Priming

Open and porous substrates will require priming with Resuprime NT on dry substrates only with less than 75% ERH reading.

Where the Relative Humidity of a substrate exceeds 75% ERH R.S. Dampshield should be specified and selected on the basis of hygrometer readings in accordance with BS 8203. The number of coats to be applied is chosen in accordance with the following table.

ERH%	Required Coating Thickness
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75-85	1coat of R.S.DAMPSHIELD at 200 microns per coat
85-92	2coats of R.S.DAMPSHIELD at 200 microns per coat
92-97	3coats of R.S.DAMPSHIELD at 200 microns per coat

Following the application of the Resuprime NT or R.S. Dampshield, copper tape strips are laid to form a grid system where the grids are no larger than 2m x 2m. The copper tape should be left exposed in areas to allow them to be earthed properly. Onto this a coat of Resustat Primer is applied to provide a fully conductive layer under the Resustat ESM. It is important to take a conductive reading of the cured Resustat Primer before applying the Resustat ESM.

## Application

The ambient temperatures of the areas should not be allowed to fall below 15°C throughout the application and the curing period, as this could have an adverse effect on the appearance and colour of the system. Surface temperature must be above 10°C. Where possible it is recommended that the application area is heated to a minimum temperature of 15°C ideally to allow the ambient and substrate temperature to stabilise prior to installation.

**Mixing:** Pre-mix the coloured base component to a uniform colour, then mix the entire contents of base with the hardener. If a separate mixing bucket is being used ensure all contents of both components are removed from the buckets supplied. Mix using a slow speed electric mixer for approximately one to two minutes until the two components have fully combined then add the aggregate slowly. Mix for a further 1-2 minutes until the aggregate has fully combined and there are no lumps. The mixed unit should be applied immediately.

Resustat ESM should be worked with a trowel or float to achieve an even smooth finish. This is best achieved by the application of smooth even pressure with the compound poured over the correct coverage rate after fixing the stop ends to control the flow of the material. Then roll the area with a spiked roller to achieve an even smooth surface and remove entrapped air. Do not re-roll the area later than 10-15 mins. The surface should be protected from temperatures of less than 10°C and moisture in the early stages of cure. This could adversely affect the flow, levelling and surface finish of Resustat ESM.

## Category Guide

FeRFA Category : 5

## Technical Information

The following figures are obtained from laboratory tests and our experience with this product .

Slip Resistance	Dry >54
Method BS7976 pt1-3 2002	Wet Please consult Sherwin-Williams

The slip resistance of a floor surface can vary as a result of the installation process, conditions at the time of application and subsequent traffic. Inappropriate cleaning or maintenance can adversely affect the performance. For further advice on potential wet areas please consult Sherwin-Williams.

Abrasion Resistance	AR 0.5
Method BS EN 13892-4	(Less than 50µ wear)


Temperature Resistance	Tolerant of temperatures up to 60°C
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Chemical Resistance	Good Chemical Resistance
	Consult Sherwin-Williams on specific materials

Electrical Resistance	<10 <sup>9</sup> Ohms
Method: BS EN 61340-4	(Results will vary slightly with finish and thickness)

VOC	92 g/l Calculated per full mixed unit
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Life Expectancy	Up to 5 years depending on applied thickness and subjected to traffic according to FeRFA classification. Sherwin-Williams terms and conditions will apply.
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BSEN 13813 SR B 3.5 - AR 0.5 - IR>4
Resin coating/screed for use inside buildings as per data sheet
Wear resistance: AR 0.5
Bond strength: B 3.5
Impact resistance: IR > 4

## Maintenance and Cleaning

Resustat ESM should be cleaned with a regular industrial cleaning regime, after specified full chemical cure time limit, with a floor scrubber utilising R.S. Industrial Floor Cleaner or similar with dirty water being removed. Isolated localised cleaning can be carried out using R.S. Tyre Mark Remover, R.S. Fats, Oils & Grease Remover & R.S. Oil Remover.

All surfaces should be thoroughly rinsed with clean water after the use of chemical cleaners.

## Health and Safety

Resustat ESM is formulated from materials designed to achieve the highest level of performance as safely as possible. However, specific components require proper handling and suitable equipment, this information is given in the relevant safety data sheets. In all cases, spillages or skin contamination should be cleaned as soon as practically possible, by dry wiping of the affected area, and thorough washing with soap and water.

The information given in this data sheet is derived from tests and experience with the products and is believed to be reliable. The information is offered without guarantee to enable purchasers to determine for themselves the suitability of the product for their particular application. Any specification or advice given by the Sherwin-Williams or its agents is based on the information supplied by the purchaser. Sherwin-Williams cannot be held accountable for errors or omissions as a result of that information being incorrect or incomplete. No undertakings can be given against infringement of patents. Some materials are derived from natural sources. As such some variation may occur. Site conditions may also contribute to variation in finish and colour.

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