Technical Data

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SAFE STEP® 100

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Part Code: Grey-43266, Safety Yellow-43277
Pack Size: 5 Litres

Description

SAFE STEP® 100 is a single pack, epoxy ester anti-slip floor coating designed for application in areas of heavy pedestrian traffic. This high-performance safety coating is easy to apply and offers optimum adhesion to metal, concrete and timber surfaces*.

SAFE STEP® 100 has a shelf life of up to two years if stored in unopened containers. A partially used container may be resealed and retained for future use.

SAFE STEP® 100 resists petrol, oil, acids and aliphatic solvents.

* Surfaces should be prepared in accordance with the instructions below and where necessary the correct primers applied. We advise against application to tiled floors due to the risk of poor adhesion.

Technical Data (Typical)

Colour:	Grey and Safety Yellow
Chemical Type:	Single pack epoxy ester
Density (Kg/L): BS3900A19	1.67
Pot Life:	Indefinite
Average Curing Times: the figures are given as a guide only. Factors such as air movement and humidity must also be considered	
Light Traffic:	12 hours @ 21°C
Heavy Traffic:	72 hours @ 21°C
Full Chemical Resistance:	7 days
Theoretical Coverage Per Pack per coat: This figure makes no allowance for substrate profile, uneven application or losses in containers or rollers/brushes.	
Spray:	6.6 m^2
Roller:	5.0 m^2
Trowel:	6.0 m^2
Shelf Life:	2 years
Flash Point:	27°C
Application Temperature:	10-30°C

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OHSAS 18001 Certificate No. OHS 78173
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Storage Conditions:	10-30°C
EU limited valve for this product (CAT A/i):600g/l (2007) / 500g/l (2010)	This product contains max. 385 g/l VOC
Volume Solids:	61%
Pendulum Slip Resistance (4S Slider – Product applied by roller) (BS7976) Pendulum Test Values (PTV)	Slip potential classification
Parallel:	Dry – 94 (Low slip potential)* Wet – 86 (Low slip potential)* Oily – 75 (Low slip potential)*
Perpendicular:	Dry – 103 (Low slip potential)* Wet – 99 (Low slip potential)* Oily – 87 (Low slip potential)*
Heat Resistance:	-20 to 90°C
Chemical Resistance:	Refer to separate Guide 'Chemical Resistance Guide for ROCOL® Safe Step Anti-slip Coatings'

*Potential to slip as interpreted in the guideline from UKSRG, 2011 recommended by the HSE

Slip potential classification, based on pendulum test values (PTV)	PTV
High slip potential	0-24
Moderate slip potential	25-35
Low slip potential	36 +

Surface Preparation

Apply SAFE STEP® 100 to clean, dry surfaces only. Remove all paint, rust and mill scale preferably by grit-blasting. Remove oil, dirt, wax by dissolving in a suitable water washable cleaner/degreaser.

All surfaces must be completely dry before application. Porous surfaces such as concrete and wood should be primed first using SAFE STEP® Non-Metal Primer to seal the surface. Metal surfaces should be primed with SAFE STEP® Metal Primer. New concrete should be allowed to cure for a minimum of 28 days before coating.

Application

1. SAFE STEP® 100 is a single component, epoxy ester coating.
2. Thoroughly mix contents preferably with a mechanical mixer such as a pneumatic drill motor with a jiffy-mixing blade until mixed material assumes a uniform colour and appearance.
3. SAFE STEP® 100 can be applied at surface temperatures between 10ºC and 40ºC. Application is not recommended when surface temperature is above 40ºC or below 10ºC. At below 10ºC curing time will increase substantially.
4. SAFE STEP® 100 can be applied by hard roller, trowel or spray equipment.

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Application Techniques

For a tidy edge, mask off the area to be coated with masking tape. Remove masking tape whilst SAFE STEP® 100 is still wet by pulling away from the area.

Roller Application
Rolled application provides the most aggressive non-slip characteristics with an irregular, ridged surface.

1. Only use a hard, phenolic coated, roller supplied by ROCOL® Site Safety Systems for applying SAFE STEP® 100.
2. Pour a pool of the mixed product onto the prepared substrate.
3. Roll material in one direction only, towards body in slow straight strokes using moderate pressure on the handle. Do not over-roll too many times or press down too heavily.
4. For maximum effect, rolling should be carried out perpendicular to the direction of traffic. Roll across ramps not down.

Trowel Application
Trowelled applications provide excellent anti-slip characteristics with a rough textured finish.

1. Use a flexible bladed plasterer's finishing trowel approximately 10 x 30 cm. Wetting trowel with xylene will help improve surface finish.
2. Pour a pool of SAFE STEP® 100 onto the prepared surface.
3. Hold the trowel at 45 degrees angle to the surface. Pull material towards body with a sweeping motion reversing the angle on the opposite stroke.

Spray Application
Sprayed applications will result in a uniform appearance with good anti-slip characteristics and is an ideal method for large areas.

There are two types of spray equipment recommended for spraying SAFE STEP® 100. The choice depends on the size of the area to be coated.

Hopper Gun (for small areas up to 50m^2)

Gun Type:	Gravity fed hopper gun incorporating a 5mm nozzle, 5-litre hopper and elbow adapter for aiming at the floor.
Air supply:	40-60psi air pressure. Ensure the air is oil free.

Spray the product in a linear motion at a distance of 40cm from the surface with an overlap of approximately 30%.

To clean equipment use xylene immediately after use.

Pressure Pot Sprayer (for large areas over 50m^2)

Machine type:	bottom outlet pressure pot nominally 30-50 litre capacity equipped with a double regulator and air driven agitator.
Air supply:	typically 50cubic feet per minute.
Fluid pressure:	typically 2-3 bar (30-45 psi)
Fluid hose:	25mm diameter bore reinforced pvc pipe
Atomising air pressure:	typically 3-4 bar (45-60 psi)
Tip diameter:	6mm

Fluid inlet to receive 25cm bore diameter PVC pipe. Air inlet to receive a 6mm-diameter airline.

With the spray nozzle removed and atomising air isolated slowly build up the fluid pressure to allow product to flow along the fluid pipe and through the gun into a container. This is done to prime the pipelines and remove any air. Note the pressure reading when the product is just flowing easily (i.e. jet of material reaching 40-50cm from gun). Switch off the air supply. Replace the spray nozzle and then rebuild the fluid

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pressure to the noted reading. Once product is flowing out of the nozzle begin to increase the atomising air pressure at the gun. As this pressure is built up the flow of product will form a spray pattern.

It is essential to match up the atomising air with the product fluid pressure, i.e. if the spray gun is not forming a spray pattern then there is not enough atomising air for the flow-rate. This can be remedied in one of two ways:

1. Reduce fluid pressure.
2. Increase atomising pressure.

Once an even spray pattern is achieved spraying can commence in a linear manner with approximately 30% overlap on each pass.

All components of the machine should be cleaned with xylene solvent immediately after use.

Surface Maintenance

It is essential that the SAFE STEP® 100 coating is cleaned regularly to maximise anti-slip performance. The use of a water-based biodegradable detergent cleaner and a long handled fibre bristled brush or a suitable floor cleaning machine is recommended. After cleaning the surface should be rinsed thoroughly with clean water and allowed to dry.

Limitations

Higher temperatures will shorten drying time and conversely, lower temperatures and high relative humidity will lengthen drying time. Exterior applications must be protected from rain for at least 12 - 24 hours after application according to humidity. Protect from heavy rain or extended exposure to water, oil and chemicals for 5 to 7 days. Although extremely durable, SAFE STEP® 100 is not a permanent coating and will require occasional touching up, especially in heavily trafficked areas.

Health & Safety

Refer to Safety Data Sheet before use. If further copies are required or for further information, please contact ROCOL at the address below:

Safety Data Sheets – Safety data sheets are available for download from our website www.rocol.com or may be obtained from your usual ROCOL® contact.

Disclaimer: *The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which may affect the use and performance of our products, for this reason it is given without responsibility.*

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