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SAFE STEP[®] Heavy Duty Repair Compound

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Part Code: 42036
Pack Size: 5kg (3 component)

SAFE STEP[®] Heavy Duty Epoxy Repair Compound is a three component epoxy repair mortar suitable for repairs to damaged concrete, sills, lintels, steps, ramps, loading bays, floors, chemical bunds, nosings on expansion joints etc. It contains no water or solvents ensuring no shrinkage during curing.

SAFE STEP[®] Heavy Duty Epoxy Repair Compound has outstanding adhesion to all surfaces, with the adhesion to most building surfaces exceeding the strength of the substrate. It can be used both inside and outside and offers a fast repair with minimum disruption to services and people.

SAFE STEP[®] Heavy Duty Epoxy Repair Compound provides the best value repair system giving durable performance and avoiding expensive repetitive repairs.

Features

- No shrinkage with excellent bond strength
- Rapid strength development
- Cures in damp conditions
- Impervious to water and frost resistant
- External & Internal use
- Resistant to a wide range of industrial chemicals
- Superior impact and abrasion resistance
- Easy to use – Pre packed units

Technical Data (Typical)

Theoretical Coverage Per Pack: This figure makes no allowance for substrate profile, uneven application or losses in containers.	5Kg pack will cover 0.5 m ² at 5mm thickness
Usable life after mixing	40 - 50 minutes @ 20 °C 80 - 90 minutes @ 10 °C
Shelf Life:	2 years
Storage:	Keep container tightly closed and dry. Store at 5-25°C
Application:	Trowel
Minimum thickness	5 mm
Final compressive strength (BS 6319 part 2)	100 N/mm ²
Shrinkage	SAFE STEP [®] Heavy Duty Epoxy Repair Compound when tested to ASTM C157 shows no measurable shrinkage during cure.
Adhesion to concrete	Bond strength exceeds the strength of concrete when applied to a suitably prepared surface (>3.9 N/mm ²)
Application temperature:	2-30°C
Clean up:	Xylene

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BS EN ISO 9001
Certificate No. FM 12448



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Technical Data

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Typical Compressive Strength Development in Accordance with BS 6319 part 2

	3 hrs	4 hrs	6 hrs	24 hrs	3 days
10°C	-	2.5 N/mm ²	9 N/mm ²	56 N/mm ²	87 N/mm ²
20°C	18 N/mm ²	35 N/mm ²	51 N/mm ²	79 N/mm ²	90 N/mm ²

Surface Preparation

All surfaces should be clean, free from oil, grease and chemical contamination.

New concrete surfaces will generally have laitance on the surface and this must be removed by either mechanical means or etching with a suitable product.

All existing coatings must be removed from the surface before any repair is carried out. Failure to do this will mean the SAFE STEP® Heavy Duty Epoxy Repair Compound bond is only as good as the existing coating.

Thorough cleaning and abrasion of any surface to which SAFE STEP® Heavy Duty Epoxy Repair Compound is being applied is absolutely essential for a successful repair.

Abrasion of surfaces will cause dusting and all loose dust should be vacuumed clear before the application commences.

Although SAFE STEP® Heavy Duty Epoxy Repair Compound may be feather edged a stronger repair will be achieved if the edges are cut straight with a suitable tool prior to application.

A primer is not normally required but for exceptionally porous surfaces SAFE STEP® Non Metal Primer can be used.

Mixing

The SAFE STEP® Heavy Duty Epoxy Repair Compound is supplied as a pre weighed three component pack. The pre bagged aggregate component should be removed from the plastic container. All the base and hardener tins should be emptied into this container and mixed thoroughly to produce a uniform material. Wear PVC or rubber gloves and goggles throughout the mixing operation.

The SAFE STEP® Heavy Duty Epoxy Repair Compound aggregate should then be added slowly to the base and hardener mix until the desired consistency is achieved.

For bonding and grouting applications approximately two thirds of the aggregate should be added.

For resurfacing and general repairs, all the aggregate should be added. The complete material should be mixed thoroughly for 2 - 3 minutes to produce a uniform mix. Prolonged hand mixing or mixing by mechanical method will produce a wetter mix.

Application

The mixed SAFE STEP® Heavy Duty Epoxy Repair Compound should be applied to the prepared area by float or trowel. The material should be spread firmly and evenly onto the surface and then smoothed over with a steel trowel or float to ensure a good compaction and a tight surface finish.

On horizontal surfaces SAFE STEP® Heavy Duty Epoxy Repair Compound can be applied in layers up to 25mm thickness. As a resurfacing material over large areas a thickness of 5 mm is recommended.

On vertical surfaces, the maximum thickness which can be applied without sagging is 10 mm. For applications involving extensive vertical areas an application of 5 mm is recommended.

When applied at 5 mm, SAFE STEP® Heavy Duty Epoxy Repair Compound will provide a coverage rate of 0.5 sq.m per 5 Kg unit. SAFE STEP® Heavy Duty Epoxy Repair Compound cannot be readily applied to overhead surfaces without the use of a shuttering. Where applications to overhead surfaces are being considered, customers should consult the dedicated ROCOL Site Safety Technical Department.

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SAFE STEP[®] Heavy Duty Epoxy Repair Compound will be able to be trafficked after 5-6 hrs at 15-20°C. Traffic times will be extended at lower temperatures.

Full mechanical and chemical resistance properties will be achieved after 4 days at 20°C.

Use of Release agent

On certain repairs there may be adjacent areas where SAFE STEP[®] Heavy Duty Epoxy Repair Compound is not required to bond. By applying a release agent to the surface, before the SAFE STEP[®] Heavy Duty Epoxy Repair Compound is applied, then after curing, a simple release can be achieved.

Cleaning

All equipment should be cleaned immediately after use with Xylene.

Limitations

Do not apply SAFE STEP[®] Heavy Duty Epoxy Repair Compound to surface temperatures below 2°C. In temperatures below 2°C it would be necessary to use tenting and air blowers to aid curing.
To aid mixing if the SAFE STEP[®] Heavy Duty Epoxy Repair Compound is stored at below 10°C then it is recommended that the containers are warmed to 15-20°C before use.

Health & Safety

Refer to Safety Data Sheet before use.

Minimum Precautions

Avoid contact with skin and eyes. Wear protective clothing, nitrile gloves and goggles during mixing and application.
Use in ventilated areas.

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 affect the use and performance of our products, for which reason it is given without responsibility.*

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