

CONCRETE REPAIR

Vetorep ER357

Epoxy-based lining mortar (Abrasion resistant)



Uses

- For manhole lining & benching.
- For rapid repairs in floors and walls.
- To repair stair treads.
- For horizontal, vertical, and overhead repairs.

Product Description

Vetorep ER357 is a three-component system consisting of solvent-free epoxy resins and a special blend of fillers to provide a trowel-grade epoxy mortar. The mixed mortar can be used for horizontal and vertical applications. Its chemical resistance properties make Vetorep ER357 suitable as the lining to sewage manholes; the product can be used to repair stair treads as well.

Advantages

- Rapid strength development (commissioning in 2 days, full cure in 7).
- Chemically resistant.
- Excellent bond to concrete.
- High impact and abrasion resistance.
- Cures in damp conditions.
- Provides a waterproof lining to manholes.
- Cost-effective.
- Used over Vetoproof CR747 to provide a permanent solution to water leaks.

Standards Compliance

- EN 13062
- EN 1504-3

Design Criteria

Vetorep ER357 shall be applied in a checkerboard fashion, at a minimum thickness of 3 mm. The use of

Vetorep ER357 in a single layer shall conform to:

- Vertical application up to 12 mm.
- Horizontal concrete repair up to 75 mm.

Technical Data

Vetorep ER357	Typical Values @ 20°C
Color	Black
Volume of Solids (%)	100
Working Time (Hours)	2
Mixed Density (kg/ltr)	Approx. 2
Compressive Strength - ASTM C579 @ 7 Days (MPa)	95
Tensile Strength - ASTM C579 @ 7 Days (MPa)	16
Flexural Strength BS 6319, Pt3 @ 28 Days (MPa)	47
Adhesive Bond (EN 1542) (MPa)	> 2 (Concrete Failure)
Initial Hardness (Hours)	24
Full Cure (Days)	7
Water Penetration (DIN 1048)	Nil
VOC Content - ASTM D2369 (gm / Liter)	< 10 (LEED Compliant)
Service Temperature (°C)	-20 to +70
Application Temperature (°C)	+5 to +35

Continuous immersion chemicals	Concentration %	Resistance
Bleach	-	Resistant
Petrol	-	Resistant
Sodium Hydroxide	15	Discoloration
Sodium Chloride	20	Resistant
Sulphuric Acid	15	Discoloration

Usage Instructions

Surface Preparation

Surfaces should be clean and structurally sound. Remove any loose or unsound brick or concrete.

Surfaces must be entirely free of oil, grease, paint, detergents, rust, or other contaminants. The surface should preferably be abraded by light sandblasting followed by thorough rinsing to remove dust.

Where a rough surface is difficult to obtain, Vetoprime EP490 should be used to prime the surface. Vetorep ER357 should be applied while the primer is still tacky.

Mixing

Stir the hardener and base components thoroughly to disperse any settling particles before mixing them together. Empty the entire contents of both components into a clean container and mix thoroughly for 2 minutes using a heavy-duty, slow speed drill fitted with a spiral mixing paddle. Once a uniform color and consistency are achieved, slowly add the aggregate, continue mixing until all the components are thoroughly blended.

Application

Apply the Vetorep ER357 mixture to the prepared substrate using a trowel. To avoid sagging on vertical and overhead surfaces, restrict thickness to 12 mm per layer. If greater builds are required, do not close the first layer's surface, apply Vetoprime EP490 after a minimum waiting time of 18 hours, and then apply the second layer while the primer is still tacky.

Cleaning

Remove Vetorep ER357 from tools, equipment, and mixers with Vetonit Solvent XX400 immediately after use.

Packaging & Coverage

Product	Pack Size	Consumption
Vetorep ER357	15 Liter Kits (Approx. 32.5kg)	1 m ² @ 15 mm thickness
Vetoprime EP490	4 Liter Kits	5.5 m ² /liter @ 100 (microns) DFT. 11 m ² /liter @ 50 (microns) DFT.

Stated coverage values are theoretical and may change depending on various factors such as the nature of substrate and wastage factors.

Legal Disclaimer

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Shelf Life & Storage

The original sealed kits of Vetorep ER357 have a shelf life of 12 months, provided it is stored clear of ground in a dry and shaded temperature-controlled place (less than 35°C).

Limitations

- Vetorep ER357 should not be used when the temperature is below 5°C and falling.
- Do not mix part packs under any circumstances.
- Do not thin the components with solvent as this will prevent proper cure.
- Do not expose the product to moving water during curing.

Health & Safety

Vetoprime EP490 and Vetorep ER357 should not contact the skin, eyes, or be swallowed.

Ensure adequate ventilation and avoid inhalation of vapor. Some people are sensitive to resins, gardeners, and solvents. Wear suitable protective clothing, gloves, and eye protection.

Use barrier creams for additional skin protection. In case of contact with your eyes, rinse with plenty of clean water and seek medical attention immediately. If swallowed, seek medical attention immediately. Do not induce vomiting.

Vetorep ER357 is non-flammable, but Vetoprime EP490 is. Keep away from sources of ignition. Avoid smoking around them. In the event of a fire, extinguish with CO₂ or foam. Do not use a water jet.

For more information, refer to the Product Material Safety Data Sheet.

Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

For further information on these products and systems kindly check our website or contact your local Saveto representative.

Saveto also provides various technical information such as CAD details, detailed method statements, specification clauses, application manuals, product selectors and technical support both in contractors and consultants offices as well as construction sites.