Vetorep ER450

Epoxy-based transition mortar (Abrasion resistant & flexible)

Uses

- Can be used as a transition mortar between bridge decks and mechanical expansion joints.
- Can be used in the interface between asphalt and concrete slabs.
- Can be used in the interface between steel and concrete elements.
- Can be used where a trafficable yet flexible mortar is needed.

Product Description

Vetorep ER450 is a three-component system consisting of solvent-free epoxy resins, hardener, and special blend of fillers to provide a flexible trowel-grade epoxy mortar. The mixed mortar is designed for bridge and highway transitioning joints and between concrete, asphalt, and steel.

Advantages

- Solvent-free.
- Hard-wearing with high abrasion resistance.
- Excellent adhesion to concrete, asphalt, and steel surfaces.
- Withstands dynamic movement.
- Cures quickly.
- Requires no priming.
- It creates a flexible mortar.

Standards Compliance

- EN 1504-3

Design Criteria

It's recommended to apply Vetorep ER450 at a thickness between 30 mm and 150 mm at a maximum of 15 m lengths in a single application.

Technical Data

Vetorep ER450	Typical Values
Color	Black
Volume of Solids (%)	100
Working Time (Minutes)	45
Mixed Density (kg/ltr)	Approx. 1.8
Compressive Strength (BS 6319, Pt2 and EN 12190) @ 7 Days (MPa)	> 40
Tensile Strength (BS 6319, Pt7, or - ASTM D638 (MPa)	> 6
Flexural Strength BS 6319, Pt3 @ 7 Days (MPa)	10
Bond Strength (ASTM D4541) (MPa)	> 2 > 1.5 > 2
Initial Hardness (Hours)	24
Full Cure (Days)	7
Water Penetration (DIN1048)	Nil
VOC Content - ASTM D2369 (gm / Liter)	< 25 (LEED Compliant)
Service Temperature (°C)	-20 to +70
Application Temperature (°C)	+5 to +35

Usage Instructions

Surface Preparation

Before applying Vetorep ER450, make sure the surface is structurally sound, free from oil, grease, and other forms of contamination. Concrete surfaces should be dry and prepared either by scabbling or grit blasting.

Mixing

The Vetorep ER450 kit has three components, a resin base, hardener, and a filler (all pre-weighed to the correct proportions). Do not mix partial quantities.

Scrap the bottom and sides of the resin container thoroughly. Then, pour the hardener into the base container. Using a mixing paddle attached to a heavy-duty slow speed electric drill, mix for approximately 2 minutes until a uniform consistency is achieved.

Transfer the resin mixture to a separate container or forced action pan mixer, add the Filler gradually and mix for another 2 minutes or until the filler has thoroughly wetted out and uniform consistency is achieved.

Application

Use tamping first to Apply Vetorep ER450, then trowel using steel float.

Curing

Allow Vetorep ER450 to cure for 24 hours at 25°C before being subjected to foot traffic. At the same temperature, full mechanical and chemical properties are achieved after 7 days (please consult the Saveto Technical Department for curing times at other temperatures).

Cleaning

Remove Vetorep ER450 from tools, equipment, and mixers with Vetonit Solvent XX400 immediately after use.

Packaging & Coverage

Product	Pack Size	Consumption	Yield
Vetorep ER450	25 Kg kits	0.46 m^2 @ 30 mm	13.8 Liters

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

Shelf Life & Storage

The original sealed kit of Vetorep ER450 has 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 ER450 should not be used when the temperature is below 5°C and falling.
- Do not mix partial quantities under any circumstances.
- Do not thin components with solvent as this will prevent proper curing.
- Do not expose the product to moving water during curing.

Health & Safety

Vetorep ER450 contains epoxy resin and coal tar which may cause skin sensitization in certain individuals.

Avoid skin contact and use a suitable barrier cream. Wear disposable rubber or plastic gloves.

Also, use eye/face protection. If contact with skin occurs, it must be removed before it hardens, followed by washing with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical treatment immediately.

Do not smoke during use. Do not use near a naked Flame. (Flashpoint: >60°C)

For further 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.