



TECHNICAL PRODUCT DATA SHEET

EVEREK SRE

SEMI-RIGID EPOXY FOR CONCRETE PAVEMENT REPAIR

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PRODUCT DESCRIPTION

EVEREK SRE/R is designed as a hard-wearing, flexible repair material for use in cracks, expansion and/or construction joints or other repairs to concrete pavements and floors. It consists of a tough, durable, chemical resistant and flexible 2-pack epoxy resin with excellent tolerance to compressive and tensile stresses and having excellent elongation characteristics, filled with graded rubber particles. It cures rapidly and is ideal for repairs to frequently used pavements and floors with limited access schedules. EVEREK SRE/R is also suitable for use as a liquid applied membrane.

When used as a binder for inert fillers or aggregates to form flexible toppings, the product is designated EVEREK SRE/S. It provides a monolithic surface layer capable of bridging hairline cracks forming in the concrete below, while providing protection for concrete floors against moisture, chemicals or abrasion.

USES AND RECOMMENDED APPLICATIONS

SRE EPOXY is used as a repair material for joints, breaks and "live" cracks in concrete floors. SRE EPOXY is resistant to abrasion, oils, grease and petrol, and to most industrial chemicals. It has an elongation at break of more than 25% when used with the recommended fillers.

SRE EPOXY can be also used as a binder for inert aggregates and other fillers. The toppings so produced are able to bridge cracks in the substrate with a width of up to half the thickness of the coating applied, and can make floors resistant to wear caused by heavy traffic including fork-lift trucks, steel-wheeled trolleys and floor-jacks.

SRE EPOXY toppings do not dust when subjected to heavy wear, and where required can be applied in a non-slip finish. They have outstanding resistance to most solvents and chemicals and are suitable for use on parking decks and ramps, in food and chemical processing plants, or as a bund-lining.

SRE EPOXY can be used to refurbish old and/or deteriorated concrete floors, or it may be applied to new concrete. It may be applied smooth, or as a non-slip finish. Appearance can be tailored to suit most requirements by careful selection of the type, size and colour of the aggregates used.

TYPICAL SPECIFICATION

1. Surface Preparation

A. - SRE EPOXY PAVEMENT REPAIR

All existing new joints should be carefully inspected to ensure the edges are sound, free from porosity, form-work pulls, spacing materials, oils, grease, etc. Only clean, sound and dry concrete surfaces are suitable for making repair. Cracks or aged, deteriorated joints should be cleaned using appropriate tools such as routers, grinders, etc. Saw cuts may be used to clean out and widen existing joints. All sides of joints and cracks must be of freshly exposed, sound and dry concrete free from entrained contaminants. Broken shoulders should be similarly excavated until no more cracked or crumbling concrete is present. Clean out all debris, loose aggregate, dirt, dust, etc, by sweeping, vacuuming or blowing with clean, dry compressed air.

B. - SRE EPOXY TOPPING

Fresh Concrete

Cure for 28 days or until the moisture content has fallen below 4.5% (as measured using a resistivity based instrument). Degrease to remove grease, oils or bituminous materials. Prepare the surface by acid etching or by mechanical means such as contained shot-blasting (blast-track), wet or dry abrasive blast cleaning, high-pressure water blasting, sanding, grinding or scabbling.

Aged or Contaminated Concrete

Degrease to remove all grease, oils, tile adhesives, bituminous materials or other foreign material. Sound surfaces may be prepared by acid etching.

Deteriorated or badly contaminated surfaces must be prepared by mechanical means such as contained shot-blasting (blast-track), wet or dry abrasive blast cleaning, high-pressure water blasting, sanding, grinding or scabbling, to produce a sound, uncontaminated surface.

NOTE 1: If acid etching, the surface must be free from previously applied coatings or line markings, curing compounds, or other contaminants; check to see that the acid is reacting vigorously with the laitence. If not, use one of the other mechanical methods above.

NOTE 2: Allow surface to dry and/or remove any loose aggregate or dust by sweeping or vacuuming before proceeding. Holes, depressions, cavities, porosity or cracks should first be filled using an appropriate epoxy/sand mortar.

2. Application

SRE EPOXY may be poured directly into a properly designed joint, crack or other repair. For joints or deep, narrow cracks use a snug-fitting backing rod (closed cell) to prevent the material running down. For wide repair over poorly consolidated material a strong plastic (eg. Fordicon) sheet can act to contain the material. Conventional fillers may be used as support beneath the backing rod for deep, wide joints to prevent sag. The depth of the repair will depend on the overall size; but in general the depth will be at least 25 mm.

If the floor or pavement has significant falls or is otherwise not level, first pour in the SRE EPOXY only to underfill the repair, ensuring it does not overflow elsewhere. Wait until it exotherms and begins to set. Then immediately top up the repair (while still warm) with further SRE EPOXY thickened with additional fine rubber or fumed silica. Strike off to a smooth, level finish with a trowel wet with kerosene or diesel.

SRE EPOXY Toppings generally self-level and are applied by notched trowel direct to the prepared surface. They may also be applied by roller or spray techniques, first applying a coat of the mixed resin, followed by a layer of stone or aggregate. Alternate layer of resin and aggregate are then applied until the desired thickness or surface finish is attained. For particularly porous substrates a seal coat of EVEREK INJECTION EPOXY may be applied to minimise air release from the substrate.

PRODUCT DETAILS

GENERIC TYPE

100% solids epoxy resin modified with blocked polyurethane resins and cured with cycloaliphatic curing agents.

APPEARANCE

Used by itself it is usually of a light amber appearance. The usual rubber aggregate gives it a black appearance. Oxides or other pigments may be used to approximate existing floor appearance. For EVEREK SRE Toppings, the texture and colour can be varied as required by selection of the aggregates used. Sand and oxide pigments are the most common, but other decorative stones such as crushed granite or marble chip can be used to develop specific hues, appearances or textures.

DURABILITY

Excellent resistance to impact, abrasion and chemical attack.

PHYSICAL PROPERTIES (determined for the resin alone, without addition of thickeners or fillers)

Compressive Stress to 50% Strain (7 Days); 6 MPa (No Failure)

Tensile Strength (Full Cure); 6 MPa; Elongation at Break; > 100%.

SET AND CURE TIMES

Pot-life is approximately 30 minutes depending on material temperature and quantity mixed. Sets to resist foot traffic and light vehicular traffic in 3 to 4 hours under standard conditions. It develops full physical and chemical cure after 14 days.

CLEAN-UP

Supplied ready-for-use. No thinning is necessary.

All equipment, spills, etc. are cleaned with epoxy or lacquer thinners.

EQUIPMENT

Mix using electric power stirrers fitted with efficient paddles. Ensure the resins are thoroughly mixed before adding the aggregates. If a separate mixing vessel is used, ensure it is clean, and do not allow partially cured material to build up. Scrape out thoroughly between mixes.

STORAGE AND SHELF-LIFE

Store under cool, dry conditions away from direct sunlight, heat or moisture. Protect against freezing. Carefully re-seal part-used containers after use, taking care to clean the rims and seals. When stored under proper conditions, EVEREK SRE EPOXY has a shelf-life of at least 24 months.

PRECAUTIONS AND FIRST AID

SRE EPOXY is free of flammable solvents, and cures to a non-toxic inert topping. However the unreacted components may be irritable to the skin, especially the curing agent. Use standard precautions for using epoxy materials. Wear protective clothing, gloves and safety glasses. Avoid contact with the skin and eyes. If on skin, wash off with water and soap and launder contaminated clothing. If in eyes flush with water for 5 minutes and contact a doctor. If swallowed, induce vomiting; use IPECAC syrup if available. Absorb spillages onto a suitable absorbant such as sand or sawdust and dispose of properly. Light spills or splashes may be removed by use of epoxy solvent. Dispose of empty cans or drums by crushing and depositing them in an authorised solid waste disposal skip or at a municipal waste transfer station.

PLEASE READ

The information contained herein is presented in good faith. However, no warranty is given nor to be inferred regarding suitability of the product for any particular purpose. The weathering resistance and physical properties information is based on data provided by the raw material suppliers. The client must satisfy him- or her-self as to the product's suitability for the end use. The content of this brochure is given as a guide to determining correct surface preparation and mixing and application of product. The information is correct to the best of our knowledge at the time of issue and is subject to change without notice.

DISTRIBUTED BY

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