



## TECHNICAL PRODUCT DATA SHEET

# EVEREK SRE/B

## JOINT SEALANT AND WATER-PROOFING MEMBRANE FOR CONCRETE STRUCTURES

Data Sheet: CTI006  
Date Issued: May 2009

### PRODUCT DESCRIPTION

SRE-BITUMEN is designed as a continuous, hard-wearing, flexible joint sealant and water-proofing membrane for use on concrete structures. It may be used to seal cracks, expansion and/or construction joints in concrete structures and floors.

SRE BITUMEN may also be used to provide a continuous barrier over exposed or buried concrete surfaces, where it forms a monolithic surface layer capable of bridging hairline cracks forming in the concrete below, while providing protection against moisture, chemicals or abrasion.

SRE-BITUMEN consists of a tough, durable, chemical resistant and flexible 2-pack bitumen modified epoxy resin filled with fine rubber particles. It has excellent tolerance to compressive and tensile stresses and excellent elongation characteristics. It cures to resist water and light foot-traffic in eight hours and can be covered with protection boards after overnight cure. Full chemical resistance and physical properties develop in 7 days.

### USES AND RECOMMENDED APPLICATIONS

SRE-BITUMEN is used as water-proofing jointing material or membrane for concrete structures including roofs, tanks, buried tunnels and culverts. SRE-BITUMEN is resistant to fresh and salt water, abrasion, oils, grease and petrol, and to most industrial chemicals. It has an elongation at break of more than 40% when used with the recommended fine rubber filler.

SRE-BITUMEN can be used to water-proof old and/or deteriorated concrete roofs or tanks, or it may be applied to new concrete structures. An SRE-BITUMEN membrane with fine rubber filler is intrinsically non-slip.

### TYPICAL SPECIFICATION

#### 1. Surface Preparation

##### **A. SRE-BITUMEN FOR JOINTS OR CRACKS**

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-BITUMEN CONTINUOUS MEMBRANE**

###### **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 other contaminants. 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-BITUMEN may be trowelled 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; in general the depth will be about half the width.

SRE-BITUMEN is usually poured directly onto the prepared surface, and spread to the required thickness by notched trowel. It may then be levelled off using a steel trowel on its edge, or a squeegee. For larger projects SRE-Bitumen may also be applied by spray techniques. For particularly porous substrates, a seal coat of SRE-Bitumen without rubber filler may first be applied to minimise air release from the substrate.

## **PRODUCT DETAILS**

### **GENERIC TYPE**

94% solids epoxy resin modified with blocked polyurethane resins and bitumen, and cured with cycloaliphatic curing agents.

### **FLASH POINT**

35°C (Hardener only); 48°C (Mixed Resin)

### **APPEARANCE**

Standard Colours are Black, Concrete Grey or Aluminium (silvery colour); surface texture varies from smooth to non-slip, according to amount of rubber filler used. Other aggregates may also be used in modify the surface texture.

### **WEATHERING**

Aluminium - Excellent resistance to sunlight and UV; Black may chalk slightly under strong UV exposure without detracting from its water-proofing or flexibility characteristics.

### **DURABILITY**

Excellent resistance to impact, abrasion and chemical attack.

### **PHYSICAL PROPERTIES**

**Compressive Stress to 50% Strain (14 Days):** Resin Binder Alone, 2 MPa; Binder with rubber filler, 3 MPa

**Tensile Strength (14 Days):** 3 MPa; **Elongation at Break:** Resin Binder > 100%; Binder with rubber filler > 40%.

**Shore A Hardness (14 Days):** 80 – 85.

### **SET AND CURE TIMES**

Pot-life is approximately 45 minutes depending on material temperature and quantity mixed. Sets to resist light foot traffic and incidental water in 5 to 6 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 rubber fillers. 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, SRE-BITUMEN has a shelf-life of at least 24 months.

## **PRECAUTIONS AND FIRST AID**

SRE-BITUMEN contains 6 % by volume of flammable solvent. Keep away from naked flames and sparks. It cures to a non-toxic inert topping. 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 absorbent such as sand or sawdust and dispose of properly. Light spills or splashes may be removed by use of epoxy thinner. Dispose of empty cans or drums by crushing and depositing them in a 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

**CTI CONSULTANTS PTY LTD**

(ABN 56 003 824 815)

4 Rothwell Avenue, CONCORD WEST NSW 2138

Phone: (02) 9736 3911 Fax: (02) 9736 3287