

# RedLINE® INSTALLATION GUIDE

*FOR USE WITH:*  
**EPOXY PASTE ON CONCRETE AND METAL SURFACES**

## INTRODUCTION

Use this installation technique on concrete or metal substrates such as slab joints and parking garage expansion joints. The process of installing the RedLINE waterproof joint in epoxy resin is simple and does not require any specialized tools or training.

The RedLINE joint waterproofing material is shipped to the job site in a roll. The description of the technique given is valid for all “hard” substrates, although this method of installation is used mainly on concrete and metal substrates. Particular attention must be paid to the application on concrete, as the quality of a concrete substrate can vary significantly. The installation procedure is described as follows:

### STEP 1: SUBSTRATE EVALUATION

Ascertain the condition and suitability of the substrate. Ensure that the substrate is free of any contaminants.

#### Acceptable condition of concrete:

- Concrete aged minimum 4 - 6 weeks.
- Maximum allowable moisture content 3%.
- Surface to be free of dust, oil, grease and other debris.

#### Acceptable condition of other substrates:

- Other surfaces, such as metal, must be free of dirt, rust, oils and grease.

### STEP 2: ALIGNMENT

Unroll the RedLINE material and position it over the expansion joint. The polyester fleece on the RedLINE material must be kept dry at all times. Dry fit the RedLINE to verify the correctness of the fit of all its supplied components. The starting location is indicated on the drawings supplied with the RedLINE roll. Then, snap a straight edge using a chalk line marking out the limit of epoxy application on each side of the building expansion joint. Epoxy should be applied 1" beyond RedLINE.

### STEP 3: SUBSTRATE PREPARATION

This step is very critical, especially for concrete surfaces. The preparation of the substrate surface will determine the strength of the epoxy bond.

#### Preparation of Concrete Substrates:

- a) Remove any cement film by grinding, pointing or sandblasting loose and damaged concrete. Use a grinding machine with a brush attachment. Clean the concrete surface thoroughly (as a guide, spend about 10 minutes cleaning per 3 feet [1 m] of concrete surface).
- b) Roughen smooth concrete surfaces using a grinding tool to ensure a proper bond.
- c) Repair large recesses and spalls using grouting mortar mix, with a rough surface finish.

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## **Preparation of Other Substrates:**

- a) Remove rust by either sanding or filing. Remove grease using a commercial degreasing agent such as TSP.
- b) Roughen smooth metal surfaces using a grinding tool to ensure a proper bond.

## **STEP 4: EPOXY RESIN PREPARATION**

Prepare the epoxy resin mixture in accordance to the epoxy manufacturer's instructions.

## **STEP 5: APPLICATION**

Apply a generous layer of the epoxy to the prepared surface with a 1/8" notched trowel. Keep the layer a uniform 1/8" [3 mm] thick. Press the RedLINE firmly into the epoxy. Use a trowel to press the RedLINE into the epoxy. The epoxy must wholly encapsulate the entirety of the RedLINE fleece and extend a minimum of 1" [25 mm] onto the substrate.

**No RedLINE fleece must be left exposed.**

Apply a 1/16" [2 mm] coat of epoxy on the top side surface of the RedLINE, making sure to completely cover the visible RedLINE fleece. Press the epoxy into the fleece, using the trowel, during application. Smooth out the epoxy at the gland's edge using a trowel to ensure all of the fleece is encapsulated. If required for certain applications, once the epoxy top coat starts to gel, sprinkle quartz sand while wet or roughen the surface by sanding it with sand paper (medium grade), when dry to touch. Recommended amount of sand; 0.6 oz./ft. [60 g/m].

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Substrate being prepared for epoxy application



Epoxy is being applied to the substrate to adhere the RedLINE joint



Epoxy is being applied to the top RedLINE fleece



RedLINE is being encapsulated with epoxy



The completed RedLINE expansion joint installation