

# **BUILDING CHEMICALS SPECIALISTS**

## **Uni-Epoxy LV**

### **Low Viscosity Epoxy Resin**

#### **Product Data**

**Uni-Epoxy LV** is an engineered, 100% solids, moisture-insensitive, long pot life, and low viscosity epoxy system. It is specially formulated and conveniently packaged for repair specialists, contractors and industrial users to assure simple application. **Uni-Epoxy LV** meets the requirements of ASTM C-881-78 Type I,II and III, Grade 1, Class B and C. **Uni-Epoxy LV** contains no oil extenders or plastisizers.

#### **Basic Uses**

**Uni-Epoxy LV** should be used wherever a low-viscosity, high strength epoxy is required to flow into small cracks or confined areas where higher viscosity products cannot flow. High modulus **Uni-Epoxy LV** can be poured into small cracks to deeply penetrate and rigidly bond them.

**Uni-Epoxy LV** is also well suited for anchoring bolts, anchors and inserts that have small annular spaces that would otherwise be very difficult to fill.

**Uni-Epoxy LV** can be mixed with aggregates to produce a high-flow grout for base plates and other anchoring applications that require a very fluid high strength epoxy grout.

#### **Reasons for using Uni-Epoxy LV**

- Penetrates substrates readily. Easy to mix for use as mortar.
- Pre-measured units. – Allows sufficient time for mixing and application before setting especially helpful in hot weather.
- Moisture Insensitive. Bonds well to damp as well as dry surfaces. Cures to a waterproof state.

#### **Surface Preparation**

The surface must be clean, sound and free of dirt, oil, and rust, standing water, paint, laitance and any other contaminant that can interfere with bonding. Sandblasting, shot blasting, scarifying, chipping or acid etching can prepare the surface. If acid etching is used, all residual acid and salts must be removed from the surface by thorough rinsing with water.

The minimum acceptable bonding condition is a damp substrate surface dry, but all standing water must be removed.

The temperature of the substrate must be between 5°C and 38°C during placement. Lower temperatures prolong cure time and inhibit proper bonding. Temperatures above 38°C shorten pot life.

#### **Mixing**

Prior to mixing, condition the grout components to a temperature range of 15°C to 27°C for optimum installation. Combine Component A, resin, and Component B, curing agent, and then mix thoroughly until a uniform, streak-free, grey mixture is obtained using a Jiffy® mixer or equivalent powered by a slow drill (450-600 revolutions per minute). The white epoxy resin and the black curing agent must be blended to a uniform grey without streaks or lumps.

After components are thoroughly mixed, aggregates may be added for grouting and patching application. Slowly pour the desired amount of dry aggregates into the mix under constant agitation and blend thoroughly. Four to seven volumes of aggregates may be added for each volume of epoxy.

#### **Application**

**For use as a bonding agent**, apply epoxy to existing concrete or other construction surfaces with a brush, roller or squeegee. Recommended coverage is **1.7 l/m<sup>2</sup> for rough surfaces to 0.6 l/m<sup>2</sup> for smooth surfaces**. Pour the mixed concrete while the epoxy is tacky. If the epoxy has hardened before pouring it, mechanically scarify the hardened epoxy surface before recoating. Best bonding is achieved if the concrete has a slump of **50mm** or less. Concrete with a slump in excess of **100mm** should not be used.

For use as an epoxy mortar for patching and grouting, the thickness of the patch or topping should be **6mm to 25mm**. Deeper applications should be patched in layers. Allow each layer to cool before adding subsequent layers.

**Uni-Epoxy LV** may be poured directly into shallow cracks and voids. Be sure to seal areas where **Uni-Epoxy LV** can run out of a crack with **Uni-Epoxy NS**.

## Cleaning

Clean tools with Toluene or Xylene immediately after use. Exercise appropriate care when using these flammable solvents.

## Limitations

Do not thin **Uni-Epoxy LV** with solvents. This will prevent proper curing. Mix only with oven-dry aggregates to avoid moisture contamination. Substrate temperature must be between 5°C and 38°C during installation.

## Packaging

Each pre-measured unit which weighs 2.5Kg and is composed of 1.73 Kg of Epoxy Resin, Component A, and 0.77Kg curing agent, Component B.

## Shelf Life

All components 12 months when stored in unopened containers.

## Health & Safety

Avoid skin and eye contact. This product can cause severe skin irritation after prolonged or repeated exposure. If contact occurs, wash immediately with soap and water. If eye contact should occur, flush with plenty of water and seek medical attention. When handling, use disposable plastic or rubber gloves, wear protective clothing and discard clothing and gloves when finished. Never warm epoxy over direct heat.

## Warranty

Frinics products will perform according to specifications only if directions are followed. Frinics is not responsible for improper use, application, or storage of its products or for use of its products in unsafe weather or with unsafe engineering or working conditions.

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