

### PRODUCT DESCRIPTION:

**DUR-E-POXY** is a sprayable, 100% solids, two-component epoxy material for bonding fresh concrete to cured concrete.

### USES:

**DUR-E-POXY** is used to permanently bond new concrete to cured concrete. The bond is stronger than the concrete itself. In addition to providing adhesive bonding, it forms a membrane that reduces moisture, chloride ion and corrosive chemical penetration. When sprayed on reinforcing bars the bonder provides protection from chloride ion attack.

### LIMITATIONS:

Not recommended for use when ambient, surface and material temperatures are less than 0°C (32°F) during application and curing period.

### COVERAGE:

Average application rate 2 m<sup>2</sup>/litre depending on surface profile and porosity.

### SURFACE PREPARATION:

**Concrete Surfaces:** Remove all laitance, oil, grease, curing compounds or other contaminants from the working surfaces. Sandblasting or mechanical abrading is preferred. Surfaces must be clean and sound.

**Steel Surfaces:** Should be sandblasted to white metal immediately before the application of the bonder.

### MIXING & APPLICATION:

| Mixing Ratios | Wgt. | Vol. |
|---------------|------|------|
| 'A'           | 84   | 81   |
| 'B'           | 16   | 19   |

Open component 'A' and agitate resin until evenly blended. Open component 'B' and pour entire contents into component 'A' container. Agitate with low speed power mixer (200-300 rpm) until one even colour develops.

**DUR-E-POXY** may be applied at temperatures down to 0°C (32°F). Cure time is significantly longer at colder temperatures and may be dramatically less under direct sunlight or other sources of heat.

### TECHNICAL DATA

#### PHYSICAL PROPERTIES:

##### Component 'A' (resin):

|                  |                |
|------------------|----------------|
| Specific gravity | 1.22           |
| Viscosity (cps)  | 15,000 ± 2,000 |
| Colour           | White          |

##### Components 'A' and 'B' mixed:

|                  |       |
|------------------|-------|
| Specific gravity | 1.18  |
| Viscosity (cps)  | 2,800 |
| Colour           | White |

##### Component 'B' (hardener):

|                  |             |
|------------------|-------------|
| Specific gravity | 0.96        |
| Viscosity (cps)  | 450 ± 50    |
| Colour           | Clear amber |

#### PHYSICAL TESTING:

##### Bond Test (slant shear) AASHTO T237-73

**DUR-E-POXY** applied, then concrete poured after:

| MPa | 1 hr. | 2 hrs. | 3 hrs. | 4 hrs. |
|-----|-------|--------|--------|--------|
|     | 29.2  | 28.2   | 22.2   | 23.2   |

All failures were cohesive in the concrete. No adhesive failure.

#### CURING SCHEDULE:

|                      |         |                  |        |
|----------------------|---------|------------------|--------|
| Pot life 200g @ 25°C | 70 mins | Open time @ 25°C | 6 hrs. |
|----------------------|---------|------------------|--------|

**DUR-E-POXY** is applied with roller, brush, squeegee or airless sprayer. Airless sprayer is preferred. It is important to achieve a uniform film thickness in all areas.

Fresh concrete may be placed at any time from 15 minutes up to 6 hours after application of **DUR-E-POXY**. It must never be placed after **DUR-E-POXY** reaches the tack-free stage.

#### **CLEAN UP:**

Use **Durex "Cleaning Solvent"**. This solvent is flammable so there must be no open lights, flames, sparking motors or pilot lights in the vicinity. Smoking near the solvent is to be forbidden.

All equipment must be cleaned immediately after use.

#### **SAFETY AND TOXICITY:**

Two-component epoxy systems are capable of producing severe injury to, or destruction of, skin and eye tissues. They are classified as corrosive for shipping purposes. Precautions must be taken to prevent prolonged or repeated skin contact and it is essential to protect eyes from splashes. Protective clothing, rubber gloves and chemical goggles should be worn when working with these products.

Some people become sensitized when working with epoxy resin systems. The sensitization may appear in the form of skin or respiratory reactions. Avoid breathing vapours, particularly if these products are used in a confined area. Face mask with #1224 is usually adequate. Air supplied mask is suitable for use in confined areas.

#### **STORAGE:**

Store in heated area and on pallets. Do not allow product to freeze. Shelf life in unopened containers is two years.

#### **PACKAGING:**

Supplied as a two component system in 4 litre units, 4 units per carton. Each container is clearly marked with product name, component designation ('A' or 'B'), manufacturers name, batch number and ratio of component mixtures. Both containers of 'A' and 'B' are colour coded the same.

#### **WARRANTY:**

**Durabond Products Limited** fully warrants their products when used and applied in strict accordance with the printed instructions on product mixing and product application. In any case **Durabond's** shall not exceed either the refund of the purchase price, or the replacement of the purchased product.

#### **TECHNICAL SERVICES:**

Technical assistance for unique applications and design is available upon request from **Durabond Products Limited**.

# **DURabond**

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