

## CIPADITE® E-600 LE

*High Performance (Low Exotherm) Epoxy Structural Grout*

### DESCRIPTION

CIPADITE® E-600 LE is a self-leveling, 100% solids epoxy grout with excellent strength and chemical resistant properties. It is a three component system consisting of epoxy resin, hardener and specially graded aggregate, and generates low exotherm.

### WHERE TO USE

Applications include grouting of bed plates for large compressors, power plant machinery, pulp and paper machinery, stamping machines, rock crushers, ball mills, scale breakers, engines, refinery equipment, rail-on-concrete, applications where high resistance to corrosion and chemical attack is imperative and applications where high impact and dynamic loads are service conditions. CIPADITE® E-600 LE is also suitable for grouting of structural column bases, bridge seats, steel floor grids, boiler setting, cranes, tanks, pressure vessels and wind turbines.

### BENEFITS

#### High Mechanical Strength:

CIPADITE® E-600 LE is characterized by its early strength development with high ultimate compressive strength. It is formulated to resist extreme vibrations and high dynamic torque associated with such installations. It's outstanding adhesion properties allow CIPADITE® E-600 LE to adhere strongly to properly prepared concrete and steel surfaces.

#### Excellent Flow:

CIPADITE® E-600 LE has excellent flow and self-leveling properties for ease of application. This characteristic permits the grout to be placed in areas with poor access and minimizes the need for strapping during placement

#### Chemical Resistance:

CIPADITE® E-600 LE is resistant to oil, synthetic lubricants, water and most common chemicals including diluted acids and alkalis

#### Grout Thickness:

Minimum of 25mm (1") to 400mm (16")

### PROPERTIES

#### Compressive Strengths

(ASTM C579B modified) at 73°F (23°C)

1 day.....16 MPa (2,322 psi)

3 days.....71 MPa (10,302 psi)

7 days.....87 MPa (12,623 psi)

28 days.....103 MPa (14,945 psi)

Tensile Strength.....15 MPa (2,177 psi)  
(ASTM C307) @ 7 days

#### Linear Shrinkage

(ASTM C531) @ 7 days .....-0.070%

Coefficient of Thermal Expansion  $1.9 \times 10^{-5}$  in/in/°F  
(ASTM C531) 23°C to 99°C (73°F to 210°F)

Flexural Strength ..... 32 MPa (4,643 psi)  
(ASTM C580) @ 7 days

Modulus of Elasticity ..... $2.3 \times 10^6$  psi  
(ASTM C580) @ 7 days

Bond Strength .....30 MPa (4,353 psi)  
(ASTM C882) @ 7 days

#### Creep (ASTM C1181)

2.76 MPa @ 60°C (400 psi @ 140° F)  $4.4 \times 10^{-3}$  in/in

4.14 MPa @ 60°C (600 psi @ 140° F)  $5.3 \times 10^{-3}$  in/in

Peak exotherm.....24.5° C (76.2° F)  
(ASTM D2471)

The above information is representative of typical values obtained under laboratory conditions. Variations can be expected due to on site conditions and/or other testing methods.

## **APPLICATION**

Surface Preparation - All concrete surfaces must be sound, dry, free of all oil, dirt, grease, laitance and other contaminants. Clean surface by mechanical means, such as sandblasting or chipping. Wood or metal forms may be used. Forms must be leak free. Contact surfaces of the forms must be coated with common paste wax or polyethylene film to prevent the grout from bonding. Isolate all anchor bolts with a non-bonding material if required.

Steel surfaces such as the underside of base plates or anchor bolts should be free of oil, grease and rust. To remove these contaminations, steel surfaces should be wire-brushed or blasted to a clean, bright metal finish.

## **MIXING AND PLACING**

Condition all grout components (A, B, & C) to a minimum of 21°C (70°F) prior to mixing. For greater flow characteristics condition all components between 25 °C (77°F) and 30°C (86°F). For the 0.05m<sup>3</sup> (1.76ft<sup>3</sup>) unit, add the hardener (Part 'B') to the base resin (Part 'A'). Mix the combined resin and hardener using a low speed heavy duty drill and mixing paddle for a minimum of two minutes. Pour the thoroughly mixed resin and hardener into a clean mortar mixer and add the 4 x 25kg (55lb bags) of aggregate while it is in motion. After all the aggregate is added mix an additional one to two minutes. For proper contact with the base plate allow grout to rise above the bottom of the plate approximately 3.175mm (1/8") the thickness of the plate. Pour the mixed grout into watertight forms using a head box to facilitate flow under the plate. Pour from one side only in order to prevent trapping air under the plate. Mixed material must be in place within 30 minutes.

## **LIMITATIONS**

Do not install CIPADITE® E-600 LE:

- if substrate and ambient temperature are below 10°C (50°F) during application.
- if the surface on which it is applied is not dry during the application.

- if sudden temperature changes are expected during the curing
- avoid exposure to water for 24 hours after placement
- do not reduce the aggregate loading without CPD® approval

## **YIELD**

One unit of A & B complete with four 25kg (55 lb) bags of aggregate will yield approximately 50L or 0.05 m<sup>3</sup> (1.76 ft<sup>3</sup>) of grout.

## **PACKAGING**

CIPADITE® E-600 LE is supplied in 0.05m<sup>3</sup> (1.76ft<sup>3</sup>) unit

7.57L (2US gal) of Part A Resin 8.33kg (18.36lbs) net weight

4.2L (1.1US gal) of Part B Hardener 4.03kg (8.88lbs) net weight

4 x 25kg (55lb.) Bags Aggregate – 100kg (220lbs) net weight

## **CLEAN UP**

Clean up tools, mixers and spills with warm soapy water while the grout is still flowable. If the grout has developed a plastic consistency use CPD® Xylol for cleaning. CAUTION: CPD® Xylol is a flammable solvent. Read Safety Data Sheet prior to using.

## **STORAGE**

Avoid storage at temperatures below 4.5°C (40°F). Although the resin is very resistant to freezing, it may partially crystallize if stored at low temperatures for an extended period of time. A heated dry warehouse is the recommended storage facility.

## **SHELF LIFE**

Two years from date of manufacture if stored unopened in the original container under normal heated warehouse conditions.

## **SAFETY PRECAUTION**

Consult Safety Data Sheet for specific instructions. SDS # 107, 108 & 109

## **WARRANTY**

The recommendations made and the information herein is based on our own and independent laboratory experience, and is believed to be accurate under controlled conditions. However, no warranty or guarantee of accuracy is made because we cannot cover every possible application of product nor anticipate every variation encountered in weather conditions, job-conditions, methods used and types of surfaces on which the product is applied. The users shall make their own tests to determine the suitability of such products for any particular purpose.

CPD® makes no warranties with respect to this product, expressed or implied, without limitation, the implied warranties of merchantability or fitness for a particular purpose.

CPD®'s liability shall be limited in all events to supplying sufficient product to re-treat and/or repair the specific area to which CPD® product has been applied. CPD® reserves the right to have the true cause of any difficulty determined by accepted test methods. CPD® shall have no other liability, including liability for incidental, consequential or resultant damages, however caused, whether due to breach of warranty, negligence, or strict liability.

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