

**PRODUCT****E/2  
Epoxy Binder****DESCRIPTION**

E/2 is a two-component, solventless, pure epoxy binder with excellent mechanical performances, good chemical resistance and outstanding adhesion to most known substrates in the construction industry such as concrete, metal, stone, marble and wood.

**USES**

E/2 is suitable for consolidating degraded supports, where the viscosity is adjusted to suite the workability, by adding filler (coarse aggregate) and thickening agent on site, as required for the specific demands:

- mixed with thickening agents to prepare impregnating and anchoring binders for application of carbon laminates, carbon, aramidic and glass fibers (**Carbonforce**).
- mixed with quartz aggregates in granulometric curve to prepare general purpose epoxy mortars for:
  - Patching spalls, pop-outs, floor toppings
  - Fixing machine and stanchion bases, manhole frames and covers, ragbolts, pins, tie-beams, etc.
  - Rebuilding degraded joints in civil construction, bridges piles, canal locks, etc.
- on its own, as primer for polymeric mortars and for embedding bolts, re-bars, dowels.
- on its own, to saturate platings when an extra stiffness is required.

E/2 based mortars, after 24 hours, meet and exceed the strength of a 28 days cured PCC.

Thanks to its unique formulation, E/2 alone can solve many problems on site.

**SPECIFICATIONS**

- Form:	two packs to be mixed immediately before using
- Colour:	Clear amber
- Mixing Ratio:	2 Parts "A" to 1 Part "B" by weight or volume.
- Density:	1,1 Kg ± 0,05 Kg/dm <sup>3</sup>
- Solids content:	100%
- Viscosity:	20-25 Poises
- Pot-Life:	30 min.
- Touch dry:	8 hours
- Overcoating time:	6-24 hours depending on temperature
- Full cure:	7 days
- Shore "D" Hardness	80
- Adhesive strength:	
mild steel to mild steel	>3.5 MPa
concrete to concrete	>2.0 MPa (100% concrete failure)
-Compressive strength:	>75MPa
- Flexural strength	>60 MPa
- Tensile strength:	>37 MPa
- Elastic modulus:	~3000 MPa
- Elongation to break	~5%



- Impact Resistance: 15-20 KJ/m<sup>2</sup>

Characteristics of E/2 mixed 1:6 by weight (1dm<sup>3</sup> mass) with graded sand

- Pot Life 60 min  
- Solids content: 100%  
- Density: 2 Kg/dm<sup>3</sup>  
- Flammability: non - burning  
- Full cure: 7 days

- Compressive strength: >75 MPa  
- Flexural strength >35 MPa  
- Tensile strength: >20 MPa  
- Elastic modulus: ~25000 MPa  
- Resistance to abrasion: 100 mmg (Taber Cs17)  
- Application temperature: Not recommended when ambient and/or surface temperature are below +5°C and falling or exceeding 40°C  
- Storage Life: 18 months minimum in the original, unopened packs under dry storage.  
- Packing: 5 Kg, 20 kg. and 66 Kg. units.

**CHEMICAL RESISTANCE**

E/2 has excellent chemical resistance to:

- Fresh, salty and demineralized waters.
- Anti-freeze liquids, oils, greases, gasolines, etc...
- Alkalis.
- Acids of medium concentration.

**HOW TO USE**

SURFACE PREPARATION

Surfaces must be sound and free from dirt, grease, old paint residues, loose materials, rust or other contaminants.

The recommended methods of cleaning are:

- Grit-blasting.
- High pressure water jetting
- Mechanical brushing

MIXING

Check uniformity of each component and stir parts "A" and "B" separately.

Mix only the quantity of material that can be used before expiration of pot-life. For standard quantities, pour all of part "B" into can containing part "A". For smaller batches check uniformity of each component, stir parts "A" and "B" separately and thoroughly, measure the two components as specified on the packs, into a clean container, mix thoroughly using a mechanical low speed mixer and a paint mixing paddle until material attains uniform consistency and colour. Carefully scrape the sides and bottom of the containers while mixing. Thorough mixing will take 3 to 5 minutes.

When E/2 is used as anchoring adhesive/binder for installation of **Carbon Laminates** and **Carbon Fibres** it should be mixed with 4-12% of THK 2 (thickening agent) to control the workability



When E/2 is used to prepare epoxy mortar always mix Parts "A" and "B" together before adding the quartz aggregates. Quartz sand is recommended whenever available. Sand should always be dry and bagged. Using graded sands with low voids will require less binder for a given volume of mortar than the use of ungraded sands.

#### APPLICATION

E/2 may be applied by brush or roller. Substrate should be primed with a thick coat of E/2 mixed with THK 2 and before application of Carbonforce and mortar. After thorough mixing, the mortar is applied evenly over the desired area by means of trowels or screeds. E/2 coat should never be allowed to dry before subsequent treatment is applied. If it does, stipple surface with stiff brush, re-coat and proceed when E/2 becomes tacky again.

#### HANDLING AND TOXICITY

"A" and "B" Components for Industrial Use Only.

Skin contact should be avoided by wearing impervious gloves (rubber or disposable polyethylene) and by using suitable goggles for eyes; barrier creams such as Kerodex K7 may also assist in affording additional protection. Any accidentally contaminated skin areas should be cleansed immediately with soap and water and/or a suitable resin removal cream. For eyes, flush with plenty of water and get medical attention immediately.

The use of solvents for skin cleansing should be avoided

#### NOTES

**E/2 is also available as E/2 S.G. (Summer Grade) offering same properties with adjusted pot-life for use in hot climate.**

All information and direction contained in this technical data sheet are given in good faith and are based on the best known practical test.

SINIT, when having no control over transport, storage, handling, use and application of its product, must disclaim all responsibilities for any unsatisfactory results obtained.

All test values at 23° C.

Revised: January 2002

These data supersede all previously published data.

SINIT S.r.l. – Via V. Chiarugi,76 – 45100 ROVIGO (ITALY)

Tel. ++39. 0425 361961 – Fax ++39. 0425 410115 E-MAIL [sinit@tin.it](mailto:sinit@tin.it) [www.sinitworks.com](http://www.sinitworks.com)



SINIT EPOXY COMPOUNDS AND NEW TECHNOLOGIES IN THE CIVIL, INDUSTRIAL AND UNDERWATER ENGINEERING

