

## Concrete Epoxy HV

### Construction and Industrial Maintenance

#### Product Description

Pioneer Pro Concrete Epoxy H.V is a thermosetting type of concrete adhesive specially designed for application on damp or dry conditions, exhibit non-sagging behavior when applied on vertical or sloping surface up to 1/8" thick films and most especially producing tough, hard, durable and infusible bond between concrete and wood, metal, masonry or asbestos once cured.

#### Key Features

- Heavy-duty epoxy adhesive
- 100% solids content
- Bonds old to new concrete
- Works on damp and dry surfaces
- Non-sagging on vertical applications up to 1/8 inch thick films
- Non-shrinking, non-chipping and non-cracking once cured
- High water and chemical resistance after curing
- Sandable and Paintable

#### Applications

##### As an Epoxy Adhesive:

1. Bonding old concrete to freshly poured concrete topping, thus eliminating "cold" joints between old and new concrete.
2. Replaces cement in bonding pre-cast, concrete structural units such as concrete decors under damp or dry conditions.
3. Bonding wood or metal to concrete surfaces such as anchoring machinery to a concrete floor
4. Anchoring and grouting concrete or ceramic floor tiles over cement, wood or steel.

#### Product Specifications / Typical Properties / Physical Characteristics

Table 1. Wet Properties\*

Parameters	Component A (RESIN)	Component B (HARDENER)
1. Appearance	Gray, soft paste	Beige, soft paste
2. Specific Gravity	1.72	1.28
3. Viscosity @ 25°C	478,000 cps	282,000 cps
4. Solids Content	100%	100%



Table 2. Mixed State Properties\*

Parameters	Results
1. Mixing Ratio	1 part A: 1 part B (by volume)
2. Appearance	Gray, soft paste to thixotropic
3. Pot life @ 26°C	90-110 minutes
4. Setting Time @ 26°C	6-8 hours

Table 3. Cured State Properties\*

Parameters	Results
1. Full cure time	72 hours
2. Hardness (after 24 hours), shore D	80 minimum
3. Shrinkage	Nil
4. Water resistance	Excellent
5. Chemical Resistance	Resistant to most acids, alkalis and other organic solvents
6. Weathering Resistance	Color will fade through time (epoxy-based products are typically not UV-resistant)
7. Tensile Strength ASTM D638	3,000 psi
8. Flexural Strength ASTM D790	4,900 psi
9. Compressive Strength ASTM D695	6,600 psi
10. Coverage area (theoretical)	Note that material losses during mixing and application will vary and must be considered when estimating requirements.
-Gallon set=10.78 Kg	10 m <sup>2</sup> depending on surface porosity and roughness

\*Typical Values and characteristics only.

### As an Epoxy Mortar:

1. Patching spalled and damaged areas in concrete structures.
2. As a tack coat or primer before pouring fresh concrete topping when bringing low areas to proper grade.

### Application Procedure

#### A. Surface Preparation

Surface must be clean and free of dirt, paint, oil, grease, loose scale and other surface contaminants. Concrete surfaces must be thoroughly cleaned by sandblasting, acid-etching or mechanical grinding. If acid-etching is used, the surface must be thoroughly flushed with water and neutralized. Surfaces should be clean and ready for application before the adhesive is mixed.

#### B. Mixing

Mix equal volumes of Parts A and B. Blend well until uniform color is obtained. To avoid wastage, prepare only the amount consumable within one (1) hour.

#### C. Method

After thorough blending of mixture has been done, apply the adhesive on both surfaces to be bonded by spatula, trowel or putty knife. In bonding old to new concrete, coat old concrete with Pioneer Pro Concrete Epoxy HV and pour fresh concrete immediately over epoxy tack coat. For an effective bond, applied epoxy should be very tacky before pouring the fresh concrete mixture, having minimal water content, such as, a slump of two (2) inches.

#### D. Cleaning

Clean all tools or equipment used while adhesive is still in its uncured state. Use Pioneer Epoxy Reducer or solvents to clean tools and spills.

### Storage

Store in a dry place at ambient temperature. Keep containers tightly closed, when not in use.

### Shelf Life

18 months from manufacturing date when kept in a sealed, unopened container following the required storage condition.

### Packaging

SKU	Packaging	Weight of set, kg	Quantity per box
Gallon set	Tin can	10.78	2 sets
Quart set	Tin can	2.67	6 sets

Note: 1 set = 1 pc component A + 1 pc component B

### Certification and Compliance

Type	Component A	Component B	Limits
Volatile Organic Content (VOC), g/L	1-5.9	19.5 - 20.4	VOC limits • Multipurpose construction adhesives- 70 g/L

### Health and Safety Precautions



#### WARNING

##### Hazards

Causes skin and eye irritation.  
May cause an allergic skin reaction.  
Toxic to aquatic with long lasting effects (if unreacted)

##### Precaution

Wash skin thoroughly after handling.  
Wear protective gloves/clothing/eye/face protection.  
Contaminated work clothing should not be allowed out of the workplace.

**If on skin or hair:** Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs, get medical attention.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**Collect spillage.**

**KEEP OUT OF REACH OF CHILDREN.**

### Warranty and Disclaimers

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