

Concrete Epoxy LV Low Viscosity

Product Description

Pioneer Pro Concrete Epoxy LV is a low-viscous, pourable and self-leveling concrete adhesive designed for patching damaged or degraded concrete structures. It is suitable for large areas of application. It exhibits a durable, tough, impact-resistant, water-resistant, and chemical resistant film once fully cured.

Key Features

- Heavy-duty epoxy adhesive
- 100% solids content
- Low VOC
- Bonds old to new concrete
- Works on damp and dry surfaces
- Pourable and self-leveling-ideal for large areas of application
- Non-shrinking, non-chipping and non-cracking once cured
- High water and chemical resistance after curing



Product Specifications/ Typical Properties/ Physical Characteristics

Table 1. Wet Properties:

Parameter	Component A Resin	Component B Hardener
Appearance	Creamy Yellow to Light Beige Flowy to Soft paste	Yellow Amber to Amber, Flowy
Specific Gravity	1.45	0.97
Viscosity @ 25°C	47,300 cps	46,400 cps
Solids Content	100%	100%

Table 2. Mixed State Properties*

Parameters	Results
Mixing Ratio	
As Tack coat	1 part A: 1 part B (by volume)
As Flooring	Same as tack coat plus inert fillers or aggregate added into the mixture based on strength and workability
Appearance	Light Yellow Beige, Slight gel to soft paste
Potlife @ 26°C	90-150 minutes
Gel Time @ 26°C	180-210 minutes

Table 3. Cured State Properties*

Parameters	Results
Full cure time	72 hours
Hardness (after 24 hours), shore D	70 minimum
Shrinkage	Nil
Water Resistance	Excellent
Chemical Resistance	Resistant to most acids, alkalis and other organic solvents
Weathering Resistance	Color will fade through time (epoxy-based products are typically not UV-resistant)
Tensile Strength ASTM D638	3,100 psi
Flexural Strength ASTM D790	3,200 psi
Compressive Strength ASTM D695	8,100 psi
Adhesive Strength (concrete-steel) ASTM D7234	1,000 psi
Adhesive Strength (steel to steel)	1,500 psi
Coverage area (Theoretical)	Note that material losses during mixing and application will vary and must be considered when estimating requirements.
Gallon set = 8.16 Kg	14-15 m ² using 150 um thickness
Quart set = 2.05 Kg	3-4 m ² using 150 um thickness

Applications (Ideas)

- Anchor and grout concrete or ceramic floor tiles over wood, steel or concrete surfaces
- Seal concrete surfaces against water and salt intrusions
- Repair spalled or scaled areas, broken slabs, and cracks in concrete structures
- Tack coat between old and new concrete when elevating floorings. When using Pioneer Concrete Epoxy LV in this manner, viscosity must first be adjusted to the desired consistency, using “C” powder. “C” powder is available and can be bought from us upon request.
- Skid proofing purposes

Application Procedure

Surface Preparation (Metallic Parts)

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.

Mixing

As Tack Coat: Mix equal parts by volume of Part A and Part B. Blend well until a uniform color is obtained.

As Flooring: Mix equal parts by volume of Part A and Part B. Blend well until uniform color is obtained. Add inert fillers of aggregates into the mixture and blend well. Quality of aggregates to be added will depend on the adhesive strength and workability desired.

Method

As Tack Coat: Apply mixture to the surface by brush or roller. Since pot life is affected by temperatures, rate of application will depend on the prevailing weather condition during application period.

As Flooring: Spread mixture with spatula, knife or trowel into areas to be applied. For skid proofing, sprinkle or cast silica grits or carborundum on the still tacky surface of the

applied mixture. Allow seeded floor to cure until firm, then sweep or vacuum excess grits. Remove projecting or loose aggregates by scraping the floor with the edge of the trowel.

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.

Packaging (available sizes)

SKU	Packaging	Weight of set, kg	Qty per box
Gallon set	Tin can	8.16	2 sets
Quart set	Tin can	2.05	6 sets

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

Certificate & compliance

Type	Component A	Component B	Limits
Volatile Organic Content (VOC), g/L	<1	7.7	VOC limits Multipurpose construction adhesive 70 g/L

Storage

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

Shelf Life

18 months to 24 months from manufacturing date when kept in a sealed, unopened container following the required storage condition.

Health and Safety Precautions

For Component A



WARNING

For Component B



DANGER

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 and face protection. Avoid breathing fumes. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response

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: 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.

KEEP OUT OF REACH OF CHILDREN.

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