

PILE SPLICING EPOXY

RAPID CURE

Product Description

PIONEER PRO Pile Splicing Epoxy is a two part, 100% solid, unfilled epoxy compound that creates a highly durable and infusible bond intended for use in pile splicing. PIONEER PRO Pile Splicing Epoxy has a superior bonding compound for concrete castings and girder connections



Key Features

- 100% reactive
- Provides superior bond
- Moisture insensitive
- May be applied to dry or damp surfaces
- Curing time adapted to work schedule, no added waiting time
- VOC compliant
- High compressive strength

Product Specifications / Typical Properties / Physical Characteristics

Table 1. Wet Properties*

Parameters	Component A (RESIN)	Component B (HARDENER)
1. Appearance	Clear to slightly Hazy, Flowy	Yellow Amber to Red Amber, Flowy
2. Specific Gravity	1.16	1.02
3. Viscosity @ 25°C		
4. Solids Content	100%	100%

Table 2. Mixed State Properties*

Parameters	Results
1. Mixing Ratio	3 parts A: 1 part B (by volume)
2. Appearance	Amber to Red, Flowy
3. Potlife @ 25-35°C	7-15 minutes (smoke starts to appear)
4. Setting Time @ 25-35°C	Proceeds right after pot life

Note: Pot life is shorter during warm weather and when volume of mixture is bigger, especially, when confined in deep containers. Pot life is longer during cold weather or when quantity of mixture is smaller and mixing container is shallow.

Applications

- For splicing and casting applications
- For securing anchor bolts, rebars and dowels in concrete

Table 3. Cured State Properties*

Parameters	Results
1. Full cure time	24 hours
2. Hardness, shore D	
-after 30 minutes	80 minimum
-after 24 hours	80 minimum
3. Shrinkage	Nil
4. Water resistance	Excellent
5. Weathering Resistance	Color will fade through time (epoxy-based products are typically not UV-resistant)
6. Adhesive Strength by Pull-off test (Steel)	1500 psi
7. Tensile Strength ASTM D638	6,577 psi
8. Flexural Strength ASTM D790	10,462 psi
9. Compressive Strength ASTM D695	
a. Without Silica Sand	15,664 psi
Curing Time @ after 24 hours (full cure)	
b. With Silica Sand	7,313 psi
at 1:1 ratio by volume	
Curing Time @ after 90 minutes	

*Typical Values and characteristics only.

Application Procedure

A. Surface Preparation

Surface contaminants such as dirt, grease, oil or wax must be removed from areas to be joined. Clean surfaces by sanding, sandblasting or brushing for stronger bonds. Surfaces should be clean and ready for application before the adhesive is mixed.

B. Mixing

- Mix Pile Splicing Epoxy component A with component B (3 parts of A: 1 part of B by volume) until a uniform color is achieved and no streaks or lumps are present. There could be excessive exothermic reaction depending on the volume mixed.
- Pile Splicing Epoxy may be used/mixed with silica sand for other particular applications. Addition of the sand is done after mixing components A and B. If desired, mix with silica sand up to 1:1 mix ratio to delay reaction time. Take note of time when to mix and the actual time to apply on the concrete pile.
- Mix only the enough volume to be consumed within its pot life period.

C. Method

Spread epoxy compound by pouring into place. Work the mixture sufficiently to thoroughly wet the surface and fill all voids. Avoid unnecessary movement of the bonded piles until adhesive has completely cured.

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.

Application Equipment

Slow speed mechanical mixer, if necessary

Packaging

Size	Volume	Packaging box
4.26 Kg kit	3.79 L	4 gallons of component A in 1 box +
3.00 Kg kit	2.67 L	4 bottles of component B in 1 box (components A and B are packed in different boxes)

Certification and Compliance

Type	Component A	Component B	Limits
Volatile	Not detected	33.96	VOC limits
Organic Content (VOC), g/L			<ul style="list-style-type: none"> Multipurpose construction adhesives- 70 g/L

Storage

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

Shelf Life

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

Health and Safety Precautions

For Component A



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.

For Component B



DANGER

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.

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Pioneer Adhesives, Inc.
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ISO 9001:2015 and ISO 14001:2015 Certified

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