

CI-PO Paste-Over and Structural Repair Epoxy

CI-PO is a fast-curing, two-component, high-modulus, high-solids, moisture-tolerant, thixotropic epoxy designed for securing injection ports at the concrete surface prior to injection repair. CI-PO is suitable for general concrete repair applications when substrate temperatures are between 40°F (4°C) and 90°F (32°C). Available in 3-gallon bulk kits or convenient side-by-side cartridges dispensed through a static mixing nozzle using either a manual or a pneumatic dispensing tool.

Features

- Dispenses with standard Crack Injection (CI) dispensing tools
- Chemically bonds with the concrete to provide a structural repair
- Gel-viscosity moisture-tolerant, can be used on dry and damp surfaces
- Non-shrink
- Can be used with metered pressure-injection equipment
- Freeze-thaw resistant

Applications

- For adhesion of crack injection ports and paste-over of cracks up to 1/4" (6 mm) in width
- For structural repairs
- As a pick-proof sealant

Product Information

Mix Ratio/Type	2:1
Cure Color	Concrete gray
Crack Width	0.016"–0.25" (0.4 mm–6 mm)
Shelf Life	24 months
Storage Temperature	45°F (7°C)–90°F (32°C)
Base Material Temperature	40°F (4°C)–90°F (32°C)
Volatile Organic Compound (VOC)	2 g/L mixed
Yield	231 in. ³ /US gal. (0.001 m ³ /L)
Thin Film (20 mil)	Set to touch: 40 min.
Set Time at 72°F, ASTM D5895	Dry through: 2 hr.

Manufactured in the US using global materials

Code Reports, Standards and Compliance

ASTM C881 and AASHTO M235 Type I; Grade 3; Class B
Type I/IV; Grade 3; Class C

Installation Instructions

Installation instructions are located at the following locations: pp. 210–215, product packaging or on the CI-PO Technical Data Sheet at strongtie.com/rps.

Accessories

See p. 209 for information on crack repair accessories.

CI-PO Packaging Information

Model No.	Capacity (ounces)	Packaging Type	Packaging Quantity	Carton Quantity	Dispensing Tools	Mixing Nozzle
CIPO32	32	Side-by-side cartridge	1	5	ADT30S, ADT30P	AMN19Q
CIPO3KT	384	3-gallon bulk kit	1 case of (3) gallon cans	—	Metering pumps offered by third party manufacturers	—



CI-PO

CI-PO Cure Schedule

Base Material Temperature		Gel Time 60 grams ASTM C881	Port Set Time ASTM D7234
°F	°C		
40	4	18 minutes	4 hours
50	10	15 minutes	2 hours
72	22	5 minutes	1 hour
90	32	3 minutes	45 minutes

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Technical Information

Compressive Strength

Cure Time	40°F (4°C) psi (MPa)	60°F (16°C) psi (MPa)	72°F (22°C) psi (MPa)	90°F (32°C) psi (MPa)	Test Standard
4-hour cure	—	9,300 (64.1)	13,000 (89.8)	13,400 (92.4)	ASTM D695
8-hour cure	—	11,500 (79.3)	13,400 (92.4)	13,400 (92.4)	
16-hour cure	—	12,000 (82.8)	13,650 (94.1)	13,400 (92.4)	
24-hour cure	7,800 (53.8)	12,150 (83.8)	13,750 (94.8)	13,400 (92.4)	
7-day cure	9,350 (64.5)	13,000 (89.7)	13,750 (94.8)	13,500 (93.1)	

Temperature Range	Class B 40°–60°F (4°C–16°C)	Class C >60°F (16°C)	Test Standard
Epoxy Classification	Types I; Grade 3 ¹	Types I, IV; Grade 3 ¹	ASTM C881
Bond Strength, Slant Shear: Hardened to Hardened Concrete — 2-day cure ² Hardened to Hardened Concrete — 14-day cure ²	1,300 psi (9.0 MPa) 1,650 psi (11.4 MPa)	2,350 psi (16.2 MPa) 2,550 psi (17.6 MPa)	ASTM C882
Flexural Strength — 7-day cure ²	1,900 psi (13.1 MPa)	3,150 psi (21.7 MPa)	ASTM D790
Modulus of Elasticity in Compression — 7-day cure ²	686,000 psi (4,730 MPa)	681,000 psi (4,690 MPa)	ASTM D695
Heat Deflection Temperature — 7-day cure ³	134°F (57°C)		ASTM D648
Glass Transition Temperature — 7-day cure ³	134°F (57°C)		ASTM E1356
Water Absorption — 14-day cure ⁴	0.26%		ASTM D570
Linear Coefficient of Shrinkage ³	0.0006		ASTM D2566
Coefficient of Thermal Expansion ³	1.38 x 10 ⁻⁵ in./in.°F 2.49 x 10 ⁻⁵ cm/(cm°C)		ASTM C531
Shore D Hardness — 24-hour cure ³	84		ASTM D2240
Shore D Hardness — 7-day cure ³	85		ASTM D2240
Adhesion to Concrete — 24-hour cure ³ Adhesion to Dry Concrete Adhesion to Surface Saturated Dry Concrete	1,200 psi (8.3 MPa) 850 psi (5.9 MPa)		ASTM D7234

1. Class B tested at 50°F (10°C), Class C tested at 72°F (22°C).

2. Class B cured at 40°F (4°C), Class C cured at 60°F (16°C).

3. Cured at 72°F (22°C).

4. Cured at 72°F (22°C), immersed in water 24 hours.