

**PRODUCT DESCRIPTION.....**

100% solids, two component, moisture insensitive epoxy.  
Designed to be used where consistently high strength adhesive is required, backed by extensive research and testing.

**GENERAL USES.....**

CIA-GEL is ideally suited for a wide range of applications requiring strength and durability including:

- Anchoring threaded rod or rebar into concrete.
- Waterproof sealant
- Anchoring vibrating equipment.
- Structural crack injection.
- Support brackets for rail projects.
- Expansion joint anchors.
- High-strength “non-pick” caulking for security projects
- Tilt up wall braces.
- Water and wastewater treatment projects.
- Bearing plates.
- Bonding between existing and new concrete.
- Anchoring for DOT projects.
- Surface patching and spall repair.

**FEATURES.....**

- Excellent chemical resistance.
- Low odor, low toxicity, non-shrink.
- ICC-ES ESR-1702.
- City of Los Angeles approved.
- Easy to use; no setting tools required.
- High strength, aggressive bonding formulation.
- Reliable: nozzle mixes two components completely.
- California Department of Transportation (Caltrans) and many other state DOT approved.
- Easy troweling when used as a spall repair.
- Moisture insensitive.
- Meets ASTM C881.
- Fast curing.
- 100% solids.
- Damp or wet applications.

**MATERIAL STORAGE.....**

Store material on pallets or shelves in a warehouse in temperatures above 40°F.

**SHELF LIFE.....** 1 year in properly stored, unopened containers.

**VISCOSITY.....**

A Component (Resin)	16,000 cps.
B Component (Hardener)	23,500 cps.
Mixed	152,000 cps. (NON-SAG PASTE)

**COLOR.....**

A Component (Resin)	Black liquid
B Component (Hardener)	White liquid
Mixed Concrete	gray gel

**CURED PROPERTIES.....**

Compressive Strength (ASTM D 695)	18,500 psi	7 days cure at room temperature.
Tensile Strength (ASTM D 638)	5,500 psi	7 days cure at room temperature.
Tensile Elongation (ASTM D 229)	0.57	
Heat Deflection Temperature (ASTM D 648)	144°F	7 days cure at room temperature.

**BOND STRENGTH.....**

Slant/Shear Strength (ASTM C-882) 6,000 psi, 7 days cure (epoxy) at room temperature.  
All breaks in concrete, no failure on bond line.

**CLEANING.....**

Prior to curing, CIA-Gel may be removed from tools and equipment using xylene or lacquer thinners.

**LIMITATIONS.....**

Application at ambient temperatures below 20°F is not recommended. Exposure to temperatures exceeding 110°F for prolonged periods is not recommended.

**SHELF LIFE.....**

1 year minimum. CIA-Gel is not sensitive to heat or UV light. Prevent from freezing.

**PRECAUTIONS.....**

Read warning on cartridge and refer to Material Safety Data Sheet prior to use.

**WARRANTY.....**

United Steel Products Company warrants its products to be free from defects in material and workmanship. Said products are further warranted as to adequacy of design, provided products are used in strict accordance with United Steel Products Company's current published design limits and are installed in a workmanlike manner. (Said warranties do not apply in the event products are cut, notched, welded, drilled or in any way altered). No warranty applies if deterioration occurs due to environmental conditions. United Steel Products Company's obligations under this warranty shall be limited to the replacement or repair of those products demonstrated to be defective. Such remedy shall constitute Customer's sole and exclusive remedy and Customer hereby agrees that no other remedy (including, but not limited to claims for INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, OR ANY CAUSE, LOSS, ACTION, CLAIM OR DAMAGE, INCLUDING LOSS OF TIME, WHATSOEVER, OR INJURY TO PERSON OR PROPERTY OR ANY OTHER CONSEQUENTIAL DAMAGE OR INCIDENTAL OR ECONOMIC LOSS) shall be available to Customer whether said claims be asserted on the basis of warranty, negligence, strict liability or otherwise. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL SUCH OTHER WARRANTIES BEING HEREBY EXPRESSLY EXCLUDED.

**PRODUCT SPECIFICATIONS**

CIA-Gel Epoxy			Mixed Epoxy
Parameter	Part A	Part B	Heat Deflection Temperature (ASTM D 648-82).....144°F
Color	Black	White	Compressive Strength (ASTM D 695M 89).....18,500 psi.
Product	Epoxy Resin	Amine Adduct	Tensile Strength (ASTM D 638).....5,500 psi at 25°C
Specific Gravity	1.21 ±.1	1.74 ±.1	Elongation (ASTM D 229).....0.57%
Flash Point	275°F/135°C	>200°F/>93°C	Shore "D" Hardness.....90
Viscosity Mixed	16,000cps at 25°	3,500cps at 25°	Slant/Shear (ASTM C-881).....6,000 psi.
Shelf Life	1 year min.	1 year min.	Meets ASTM C 881-83.....Types 1, 2 & 4, & 5
	Not sensitive to UV light or heat. ....		Class B, C, D, E & F
			Viscosity.....152,000cps @ 25°C

**CURE TIMES FOR ANCHOR BOLT**

<u>Temperature</u> (F°)	<u>Initial Set Time</u> (hrs.)	<u>Bolt Up Time</u> (hrs.)	<u>Cure Time</u> (hrs.)
40-50	5	12	96
51-60	4	8	72
61-70	3	6	48
71-80	2	4	36
>80	1	4	24

Initial set time is time adhesive must remain undisturbed. Bolt up time is time required before nuts may be tightened. Cure time is time required for adhesive to completely cure.