



A GIBRALTAR INDUSTRIES COMPANY 

# EPOXY INJECTION

For Concrete, Masonry and Wood



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## **PRODUCT DESCRIPTION.....**

CIA-SLOW SET Injection Resin is an epoxy system designed for the repair of small to medium width cracks in concrete, and as a bonding agent, high strength grout, or curable hydraulic fluid. CIA-SLOW SET Injection Resin has the viscosity of light oil, and a low surface tension, that allows it to deeply penetrate fine cracks very easily. It cures to a solid with no shrinkage, and welds the structure back to its original monolithic strength. When used in the USP Structural Connectors Cartridge System, the contractor can now do the work himself, saving considerable time and money. The CIA-SLOW SET Injection Resin bonds well to moist and wet surfaces, steel, wood and most plastics, and can be used for wood beam injection repairs. For cracks of 1/16" or larger in slabs that are uncontaminated, the material may be dispensed directly into the crack without injecting under pressure.

## **USES.....**

The CIA-SLOW SET Injection Resin is a high strength, moisture insensitive, low viscosity epoxy ideally suited for crack repair, bonding new concrete to old. A concrete sealer and for all long open time or large volume applications to be preformed at temperatures below 45 degrees Fahrenheit. It can be used for repair and restoration of parking garages, foundation wall cracks, structural concrete welding, pre-stressed membrane repair, bridges, reservoirs, dams etc. Well suited for large batch mixing applications such as a curable, low viscosity hydraulic fluid for flat jack applications.

## **FEATURES.....**

Extra long pot life, low heat build up in large volumes applications, slow uniform cure rate, conforms to ASTM C881. Can be extended with the addition of aggregates for high strength grouting applications.

## **EPOXY COMPOSITION.....**

CIA-SLOW SET Injection Resin is a special blend of Bisphenol-A Epoxy Multifunctional low viscosity diluents and state of the art modified polyamine curing agents. This unique formulation results in a high modulus system that penetrates very fine cracks easily due to low surface tension. Designed to cure at low temperatures in large masses without excessive heat build up and consequent expansion and shrinkage during curing.

## **CURING CHARACTERISTICS.....**

The following cure data should be used as a guideline only. Cure rates in concrete or in steel flat jacks vary widely, depending on moisture, humidity, mass of epoxy, and ambient temperature.

## **INITIAL CURE TIMES.....**

Thin film (1/32") at 40°F	8 hours
Final cure	14 days

## **MIXING RATIO BY WEIGHT.....**

Component part A	60 parts
Component part B	100 parts

## **HELPFUL HINTS.....**

Cleanup: Wash tools regularly with toluene or other solvents. Tools left contaminated with cured epoxy can be cleaned easily by soaking in tri-chlorethelene based carburetor cleaner and rinsing with solvent. **DO NOT USE SOLVENT TO CLEAN YOUR HANDS!** Use a waterless hand cleaner, and then apply a barrier cream for added protection. Clean hands immediately after exposure to epoxy resins. An excellent cleaner is ZEP MVP. Do not wear epoxy soiled clothing next to your skin.

## **SAFETY PRECAUTIONS.....**

Warning: Uncured epoxy resins contain some materials that are toxic before cure. Use protective clothing, gloves, and goggles at all time when handling these materials.

**EXOTHERMIC PROPERTIES.....**

Peak Exotherm, 130-140°F 400g mass

**MIX RATIO A:B.....**

By Volume 2:1 By Weight 100:41

**POT LIFE.....**

150 gram mass  
 77°F 6 minutes  
 40°F 30 minutes  
 30°F 90 minutes

**VISCOSITY.....**

Mixed 500 cps.

**FORM/COLOR.....**

Component part A (Resin)	Clear yellow liquid
Component part B (Hardener)	Clear red liquid
Mixed	Clear red liquid

**CURED PROPERTIES.....**

(ASTM D695)	Compressive Strengths	9500 psi. minimum
(ASTM D638)	Tensile Strength	7300 psi. minimum

**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.