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

CIA-SLV Resin 7412 is a super low viscosity epoxy system designed for the repair of fine width cracks in concrete, masonry and wood to 0.003". CIA-SLV Resin 7412 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. The CIA-SLV Resin 7412 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.

Conforms to ASTM C-881 Type 1, Grade 1, Class B & C

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

- Binder for epoxy mortars.
- Foundation wall cracks.
- Gravity feed crack repair.
- Bonding new concrete to old concrete.
- Repair or restoration of parking garages.
- Pressure injection of structural concrete, masonry and wood.
- Bridges, reservoirs, dams, etc.
- Pre-stressed membrane repair.
- Concrete sealer.

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

- High strength.
- Super low viscosity.
- Moisture insensitive.
- Penetrates deep into cracks.
- 2:1 mix ratio by volume.
- Conforms to ASTM C 881.

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

CIA-SLV Resin 7412 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 in very thin film, the system will perform in temperatures as low as 35°F.

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

The following cure data should be used as a guideline only. Cure rates in cracked concrete vary widely with crack width, moisture or humidity within the concrete and temperature of the substrate.

## **INITIAL CURE TIME.....**

Thin film (1/32") 68°F	12 hours
Final cure	3 days
Pot life 30 gr mass 68°F	19 minutes

For each 10°F change in substrate temperature, double or half curing time.

## **MIXING RATIO BY VOLUME.....**

A Component	1 part
B Component	2 part

## **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 waterless hand cleaner, and then apply a barrier cream for added protection. Clean hands immediately after exposure to epoxy resins. 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 times when handling these materials.

**MATERIAL STORAGE.....**

Store material on pallets or shelves in a heated warehouse in temperatures above 60°F.

**SHELF LIFE.....**

1 year in properly stored, unopened containers.

**VISCOSITY.....**

A Component (Resin)	950 cps. @ 77°F (25°C)
B Component (Hardener)	100 cps. @ 77°F (25°C)
Mixed	225 cps. @ 77°F (25°C)

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

A Component (Resin)	Clear Amber Liquid
B Component (Hardener)	Clear Liquid
Mixed	Clear Amber Liquid

**CURED PROPERTIES.....**

Compressive Strength (ASTM D 695)	15,920 psi	7 days cure at room temperature.
Tensile Strength (ASTM D 229)	8,942 psi	7 days cure at room temperature.
Heat Deflection Temperature (ASTM D 648)	131°F (55°C)	7 days cure at room temperature.
Compressive Modulus (ASTM D 695)	4.81 x 10 <sup>5</sup> psi	

**BOND STRENGTH.....**

Slant/Shear Strength (ASTM C-882)	5,000 psi	7 days cure (epoxy) at room temperature.
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All breaks in concrete, no failure on bond line.

**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.