



CCW-109

Epoxy Bonding Compound

DESCRIPTION

CCW-109 is a multi-purpose, two-component, 100%-solids, liquid epoxy adhesive that creates durable and permanent bonds between concrete and such materials as wood, metal, masonry and skid-resistant aggregate. Typical applications include bonding curbs, repairing cracks, building up depressions in balconies and sidewalks and as an aggregate-filled topping on interior and exterior surfaces. When CCW-109 is used to bond concrete, it provides a seal at the interfacing and this bonded interfacing is, in fact, stronger than concrete itself. When fully cured, CCW-109 is resistant to alkaline chemicals, petroleum products, water, seasonal weather changes and attacks by abrasion.

TYPICAL USE

CCW-109 is supplied in the liquid state for use as a general purpose adhesive and concrete surfacing compound. The user may add inert fillers, such as sand or gravel, to make a trowelable mortar. Thus, CCW-109 has great flexibility for the final user. Typical examples of how CCW-109 has been used are:

AS AN EPOXY ADHESIVE

- Attaching precast concrete parts to existing concrete.
- Bonding wood, metal or plastic to concrete surfaces.

AS AN EPOXY MORTAR

- Patching spalled and damaged areas in concrete.
- Filling and leveling of chuck holes and for bringing low areas to proper grade.
- Resurfacing of exterior concrete floors and other commercial areas where degradation of concrete is common.

AS AN EPOXY AGGREGATE BINDER

- Refinishing of floor surfaces that must be subjected to heavy traffic.
- To form a protective and decorative topping with excellent resistance to alkalis and water or for areas subjected to heavy traffic.
- Sealing and skid-proofing waterproofed concrete or wood surfaces by scattering abrasive onto the tacky CCW-109.

PACKAGING

CCW-109 is available in 2-gallon and 10-gallon units.

Shelf life 12 months from date of manufacture when stored at 85°F or below.

TECHNICAL DATA

APPLICATION PROPERTIES

Color	
Part A (base resin)	Clear, light amber
Part B (hardener)	Available in limited colors
Consistency	Pourable, self-leveling
Solids Content	98-100%
Mixing Ratio	1:1, A:B, by volume
Pot Life	
Unfilled	40 min @ 77°F
With Aggregate	60 min @ 77°F
Tack-Free Time	5 hrs @ 77°F
Cure Time	
For Pedestrian Traffic	12 hrs @ 77°F
For Vehicular Traffic	24 hrs @ 77°F

CURED PROPERTIES

Tensile Strength	5,600 psi
Compressive Yield Strength	12,800 psi
Ultimate Flexural Strength	10,000 psi
Hardness (Shore D)	85
* Individual lots may vary +/- 10% from Typical Value	

WARNINGS AND HAZARDS

Uncured epoxy compounds may produce irritations following frequent and prolonged contact with the skin. Avoid breathing vapors and avoid contact with skin, eyes or clothing. The use of gloves, aprons, protective creams or other protective devices is recommended. In case of skin contact, wash thoroughly with soap and water. If contact with eyes is made, flush thoroughly with clear water and get medical attention.

Before use, refer to MSDS for important warnings and safety information.

INSTALLATION

SURFACE PREPARATION: Concrete surfaces must be free of dirt, paint, oil, grease, loose scale and other contaminants. Where applicable, sandblasting or mechanical grinding is recommended. Oil and grease can be removed by washing and scrubbing with a strong detergent and then thoroughly rinsing with clean water. Repeat if necessary until surface no longer beads water. CCW-109 will cure in the presence of residual moisture, but free-standing water or puddles must be removed and the surface allowed to dry.

MIXING: Stir contents of Part B until uniform. Mix equal volumes of Part A with Part B. Blend until color streaks disappear and a uniform color is obtained. Mixing must be thorough.

WORKING LIFE: CCW-109 has a pot life of approximately 35 - 45 minutes at 77°F. The addition of aggregate will extend the pot life by approximately 50%. Mixed material should be used immediately, or for a longer working life, the mixed material should be poured into a shallow container or poured directly onto the flooring to be covered. Heat builds up quickly when the material is kept in a mass; thus, it results in a short working life. Also, the higher the ambient temperature, the shorter will be the working life of CCW-109.

APPLICATION

PRIMER APPLICATION: As a primer, apply at a rate of 300 square feet per gallon. Avoid puddling or ponding. Allow primer to dry 3 hours minimum, 8 hours maximum at 75°F prior to further coating application. Ambient temperatures will vary the dry time.

APPLICATION: Without Aggregate: After mixing Part A and Part B in their proper proportions, the mixture may be applied to the surface by trowel, squeegee or airless spray. On porous surfaces, two coats may be required due to absorption. The standard material is designed to be of a high-build consistency. When used as an aggregate binder the special order, low-viscosity, self-leveling grade may be desired. **With Aggregate:** When the adhesive is mixed, inert fillers may be added to obtain the desired consistency. The mixture should be handled and applied using techniques similar to those used with concrete. Trowel mortar onto or into areas to be filled. Trowel to the desired smoothness. In troweling to the desired finish, solvent may be used as a lubricant on the trowel.

COVERAGE

Coverage depends upon surface roughness and porosity. When used as a wear layer in deck coating systems, CCW-109 should be applied at the rate of 250 to 300 square feet per gallon, followed by the addition of aggregate to refusal. When used as a seamless flooring, CCW-109 should be applied at the rate of 40 to 60 square feet per gallon. Aggregate may be added to greatly extended coverage and thereby reduce the cost per square foot. One gallon will yield approximately 231 cubic inches of adhesive or 924 cubic inches of mortar when a ratio of 3 parts aggregate to 1 part adhesive is used.

CLEAN UP: CCW-109 can be removed in the uncured state through the use of toluene or xylene solvent. Once cured, however, CCW-109 must be removed by mechanical means.

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LIMITED WARRANTY

Carlisle Coatings and Waterproofing, Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the material or refund the purchase price.

This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.