



A Penetrating Ultra Low Viscosity Modified Epoxy Used for Gravity Filling of Concrete Cracks

DESCRIPTION

CrownWeld GF, Product No. 108 is a 100% solids, 100% reactive, ultra low viscosity, moisture-tolerant, non-shrink, modified two-component, epoxy penetrating gravity filling crack sealer. It is formulated to penetrate and fill cracks within the concrete structure. The polymer has excellent adhesion to the substrate and cures under dry and damp conditions. It creates a high strength adhesive that conforms to ASTM C 881 and AASHTO M-235 specifications.

WHERE TO USE

Use on clean concrete surfaces that have partial or full depth cracks.
Structurally Repairs Cracked Concrete Slabs-On-Grade Concrete Surfaces
Elevated Slabs and Building Fascia and Exposed Other Surfaces
Interior or Exterior
Heavy Traveled Vehicular Traffic Areas
Pretreatment before Patching and Overlaying Floor Polymer Concrete Systems, Tile and Carpets

ADVANTAGES

Penetrates Cracks By Gravity Down to 0.004 Inches in Width
Excellent Working Time
Cures and Adheres on Dry or Damp Concrete Surfaces
Applicable and Curable Down to 33°F(1°C)
Creates a Dense, Non-porous Adhesive within the Concrete Mass
100% Solids, No VOC's
Ultra Low Viscosity Aids Fast Penetration
Very Safe to Use
Low Odor During Application
Cures Without Other Chemical or Heat Aids
USDA and FDA Compliance
Applied with Squeegee and Roller
Improves Strength Properties of Concrete
Reduces Water Absorption and Chloride Ion Intrusion
Extends Service Life of Concrete
Open to Traffic in Approximately 6 Hours

TYPICAL COVERAGE

It is difficult to determine exact coverage's of a penetrating product. The denser the concrete the less penetration, and the higher the porosity, width and depth of the crack the product will penetrate deeper. Application rates vary from 70 to 140 ft² / gallon (1.2 to 2.3 L / m²).

TYPICAL DATA FOR CrownWeld GF

COLOR	Light Amber
Viscosity	30 - 50 cps (MPa.s)
Potlife	12 - 18 minutes
TENSILE (ASTM D 638)	
Strength	5,100 psi (35.2 MPa)
Elongation	>6%
Flexural (ASTM D 790)	
Strength	8,300 psi (57.3 MPa)
Modulus of Elasticity	4.7 x 10 ⁵ psi
COMPRESSIVE STRENGTH (ASTM D 695), psi (MPa)	
	40°F 60°F 73°F
1 Day	510 (3.5) 3,350 (23.1) 6,350 (43.8)
7 Days	12,750 (88.0) 13,900 (95.9) 15,600 (107.7)
Bond Strength (ASTM C 882), psi (MPa)	
Hardened Concrete to Hardened Concrete to Steel	
1 Day (Moist Cure)	1,650 (11.4) 1,700 (11.7)
7 Days (Moist Cure)	3,150 (21.7) 2,235 (15.4)
Deflection Temperature (ASTM d 648)	
7 Days	153°F (----°C)
WATER ABSORPTION (ASTM D 570)	0.34%
TACK-FREE	73°F - 6 hrs. 33°F - 12 hrs
FULL CURE	7 Days
SHELF LIFE	1.5 Years

LIMITATIONS

DO NOT APPLY ON WET OR WATER SATURATED CONCRETE SURFACES
Do Not Apply When Substrate Temperature is Below 33°F (1°C).
Do Not Thin with Solvents or Other Materials, They Will Prevent Proper Cure.

SURFACE PREPARATION

1. Concrete substrate must be sound, clean, free of adhesives, coatings, curing compounds, foreign materials, oils, dust, contaminants, laitance and surface moisture.
2. Abrasive blast concrete surface for best results.
3. All of the above work must be completed, if required, just prior to product application.

How To Use CrownWeld GF, Product No. 108

PRECONDITIONING POLYMER

When temperatures drop polymers typically thicken and it becomes harder to flow or to spread the product. When the temperatures are warmer, they typically become thinner. To improve the product flow-ability maintain temperature at about 20°C (73°F) before mixing. When the substrate temperature is 10°C (50°F) or lower preheat each epoxy component to 90°F before mixing. Caution the potlife will be reduced by about 50%.

MIXING

Pour Component "B", into Component "A" and mix for 60 seconds (until one even colors develops) with a low speed paddle attached to a drill (400-600 rpm). Keep containers tightly closed. The mixed product is ready for immediate placement.

WARNING

Mixed CrownWeld GF will become very hot if allowed to remain in the container longer than the potlife. The heat from the container or spillage on the skin could cause burns. Most applications require that the mixed epoxy be poured directly on the surface after mixing and this eliminates this potential problem. When it is necessary to haul the mixed epoxy from one location to another location mix smaller batches.

**FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF
CHILDREN**

APPLICATION METHODS

1. Pour the mixed polymer onto the concrete surface and spread evenly over the surface leaving a thick layer of epoxy with a squeegee.
2. Back roll the wet polymer into the cracks with a 3/8 in. nap roller. Help work the material into the concrete by pressing down onto the roller with extra pressure.
3. Leave a wet film of epoxy on the surface of the concrete after rolling.
4. Inspect all areas repeatedly to see if the concrete has absorbed the epoxy into the concrete mass. If it has immediately apply more material as explained above. Repeat as many times as necessary.
5. The surface may be used immediately if dry, clean sand is broadcasted evenly over the treated areas until a dry layer is present.

CURING

1. Allow the epoxy to develop the tack-free cure stage before applying another system over the top of CrownWeld GF.
2. Carefully inspect the entire area to make sure that the epoxy has not penetrated deeper into the concrete and left a crack only partially filled. If a crack is only partially filled allow the epoxy to develop its gel stage of cure and then add fresh epoxy into the void until the void will accept no more product.

CAUTION

Component "A" - Irritant

Contains epoxy resins. Prolonged contact with skin may cause irritation. Avoid contact with eyes.

Component "B" - Corrosive

Contains aliphatic/cycloaliphatic amines. Contact with skin may cause severe burns. Avoid eye contact. Product is a strong sensitizer

IMPORTANT INFORMATION

Use of safety goggles, chemical-resistant gloves, adequate ventilation and NIOSH/MSHA approved respirator is recommended.

CLEAN UP

In case of spills wear suitable protective equipment, contain spill, and collect with absorbent material, place in suitable container. Ventilate area. Avoid contact. Dispose according to applicable local, state, and federal regulations.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. For respiratory problems, remove person to fresh air. Contact Physician Immediately. Wash clothing before re-use.

**Consult Material Safety
Data Sheet for More
Information**

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