

CrownWear[™] LM EPC

Product Description Sheet No. 204

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PRE-PROPORTIONED KIT, EPOXY POLYMER CONCRETE FOR OVERLAYS, PATCHING, KURF FILLING AND EXPANSION JOINT NOSINGS

Description

CrownWear LM EPC, Product No. 204 is a 100% Solids, moisture-insensitive, non-shrink, 3 components, low-modulus, Epoxy Polymer Concrete Kit formulated as a packable, screed or hand troweled system.

Advantages

- Pre-portioned Kit - Ready to Mix and Place
- Self-Priming Formula
- Non-Shrink
- Moisture-insensitive
- Packable or Troweled
- No Depth Limitations
- Fast Cure Rate
- Low Heat Development
- Excellent Strength Properties
- High Compressive Strength
- High Vibration Resistance
- Fast Strength Gain
- Easy to Place

Where to Use

Overlays and Patching concrete, Kerfs filling and Expansion Joint Nosings.

Coverage

Packable Yield

0.5 ft³ (0.014m³) per kit
Use Product Code 204 P

Packaging

5 Gallon Pail (Epoxy and Sand)

Typical Data for CrownWear LM EPC

(Material and Curing Conditions at 73°F unless noted, 50% R.H.)

COLOR Concrete Gray **VISCOSITY** 1,500-2,500 cps

WORKING TIME MIXED WITH AGGREGATE 73°F (23°C)
½ ft³ (0.014 m³) - 1 in. (25mm) Thick 20 to 25 minutes
3.25 in. (82 mm) Thick 12 to 15 minutes

TACK-FREE TIME (Traffic Useable)

Thickness	40°F	73°F	90°F
¼ to 1 in. (6 to 25mm)	8-9 hrs.	5-5.5 hrs.	2-2.5 hrs.
3 ¼ x 3 ¾ in. (80 x95mm)	6.5 hrs.	2.5 hrs.	1.5 hrs.

TENSILE PROPERTIES (ASTM D 638) 7 Days

Tensile Strength 3,000 psi (20.7 MPa)
Elongation at Break 30 to 60 %

COMPRESSIVE STRENGTH (ASTM C 579)

3 hrs.	1,000 psi (6.9 MPa)
24 hrs.	5,000 psi (34.4 MPa)
7 days	8,000 psi (55.2 MPa)

BOND STRENGTH TO CONCRETE, (ACI 503 R)

24 hrs. 250 psi (1.7 MPa)

ABSORPTION (ASTM D570)

24 hrs. Neat max. 1%

PERMEABILITY TO CHLORIDE ION (AASHTO T277)

28 days max. 100 Coulombs

SHELF LIFE 2 years in original unopened containers

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Surface Preparation

Concrete and other substrates must be clean, sound, and free of standing water. Remove dust, grease, waxes, coatings, curing compounds and all contaminants by mechanical means such as bush hammering and/or abrasive blasting. Abrasive blast all metal surfaces to white metal for best adhesion. Apply EPC before flash rusting develops or the cleaned concrete becomes contaminated.

Test Substrate for Adhesion

Before placement of the Epoxy Polymer Concrete, check the concrete and steel substrates for soundness and cleanliness with a Tensile Pull Test (ACI 503 R) or Shear Test. 100% concrete must fail to pass either test.

Preconditioning Epoxy

When temperatures drop, it becomes harder to mix and place the EPC because the epoxy thickens. To improve the mix ability and placement at temperatures below 65°F (18°C) preheat each epoxy component to 90°F before mixing. Caution the potlife will be reduced by about 50%.

Mixing

Remove epoxy containers and sand from 5-gallon pail. Mix the entire contents of Component "A", then pour Component "B" into "A" and mix for 90 seconds with a slow speed paddle attached to a drill (400-600 rpm).

Pour the mixed epoxy into the 5 gal. pail and slowly add the sand and mix until uniformly blended, about 2 minutes. Place EPC immediately.

Application

- Prime Surface:** The EPC is self-priming when the material temperature is maintained above 70°F (21°C) before mixing. Place The mixed EPC onto the clean surface and compact. Pull away the EPC and check the substrate for full wetting. The purpose of priming is to wet out the entire substrate 100% without having dry areas. If dry areas are present, check the temperature of the materials.
- Filling Forms or Voids:** Pour the mixed EPC into the form or void area in maximum lifts of 3 in. (75 mm), compact and immediately place the next lift on the wet EPC, compact and continue the lifts upward until the void is filled. Compaction eliminates air pockets and entrapment. Screenshot or trowel the exposed surface to the desired profile (texture).
- Troweled Applications:** Place EPC to desired thickness, compact and trowel.
- Usable:** Allow to become tack-free before using.

Limitations

- Minimum substrate and ambient temperature is 40°F (5°C).
- DO NOT THIN - solvents will prevent proper cure.
- Maximum EPC depth is three (3) inches (75 mm) per lift before placement of the next lift.
- Cold applications may require mechanical vibrating compactors for placement.

Caution

Before Using Read Material Safety Data Sheets.

Component "A" - Irritant

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

Component "B" - Corrosive

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

Component "C" - Contains silica sand. Avoid breathing product.

Important Information

Use of safety goggles, chemical-resistant gloves, adequate ventilation and NIOSH/OSHA 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

**FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINERS TIGHTLY CLOSED**

LIMITED WARRANTY - "Crown Polymers, LLC warrants its products to be free of manufacturing defects, to be of good quality, and that they will meet Crown Polymers current published physical properties when applied in accordance with Crown Polymers written directions and tested in accordance with ACI, ASTM and Crown Polymers Standards. Product proved to be defective will be replaced. There are no other warranties by Crown Polymers, LLC of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Crown Polymers, LLC shall not be liable for damages of any sort, including remote or consequential damages, resulting from any claimed breach of any warranty, whether expressed or implied, from any other cause whatsoever. Crown Polymers will not be responsible for use of this product in a manner to infringe on any patent held by others."

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