

CrownFlex™ Membrane

Product Description Sheet No. 304

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Waterproof Membrane or Base Coat for Commercial and Industrial Floor Systems Requiring Added Protection

Description

CrownFlex™ Membrane, Product No. 304 is a 100% Solids, Moisture-insensitive, Non-shrink, Two-Component Epoxy / Polyurethane Membrane and Base Coat.

Recommended Use

On Dry Concrete, Steel and Wood Surfaces as a Neat Membrane, Epoxy-Glass Reinforced Membrane or Base Coat for Foot & Vehicular Pneumatic Tire Traffic.

Typical Areas of Use Include:

1. Commercial Floors
2. Industrial Floors
3. Precast Concrete Balconies
4. Food Processing Plants
5. Pharmaceutical Plants
6. Manufacturing Plants
7. High Rise Building Floors
8. Water Treatment Plants
9. Mechanical Rooms

Advantages

- Good Working Time
- Nearly No Odor
- 100% Solids, No VOC's
- Non-Shrink Membrane
- Fast Cure Rate
- Cures Down to 40°F
- Excellent Strength Properties
- Excellent Impact Resistant
- Easy to Place
- Overlayment May Be Placed When Membrane is Tack-Free

Typical Data for CrownFlex Membrane

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

COLOR Medium Gray, Black or Straw

POTLIFE 20 - 25 minutes

VISCOSITY 2,000 – 2,750 cps

CONSISTENCY Nearly Self Leveling

TACK-FREE TIME

| | | | |
|-----------------------|--------------|------------|------------|
| Substrate Temperature | 40°F * | 73°F | 90°F |
| | 10 - 12 hrs. | 6 - 8 hrs. | 5 - 7 hrs. |

TENSILE PROPERTIES (ASTM D638) 7 Days

| | |
|---------------------------|-------------|
| Tensile Strength | 2,100 psi |
| Elongation at Break, min. | 70 to 100 % |

SLANT SHEAR STRENGTH (ASTM C882) 7 Days

| | | |
|------------------|-----------|-----------------------|
| Test Temperature | Value | Mode of Failure |
| 90°F | 3,000 psi | 100% Concrete Failure |
| 40°F | 3,200 psi | 100% Concrete Failure |

COEFFICIENT OF THERMAL EXPANSION (ASTM D696)

| | |
|-------------------|--|
| Temperature Range | -30°C (-22°F) / 30°C (86°F) |
| 7 days | 7.5.0 X 10 ⁻⁶ in / in. / °F |

HARDNESS, SHORE D (ASTM D2240)

| | |
|--------|----------|
| 7 Days | 35 to 45 |
|--------|----------|

WATER ABSORPTION (D570)

| | |
|--------|-------|
| 7 Days | 0.17% |
|--------|-------|

SHELF LIFE 1.0 years in original unopened containers

PACKAGING 4 and 10 Gallon Pails

APPLICATION NOTES

1. On damp surfaces, prime the surface with CrownPrime, Product No. 302. Allow polymer to become tack-free before applying CrownFlex Membrane 304.
2. CrownFlex Membrane is not a wear surface and requires an appropriate wear surface to protect the membrane

Surface Preparation and Equipment

Concrete, stone, wood and other substrates must be clean and sound. Remove dust, grease, waxes, oils, concrete laitance, curing compounds, coatings and all contaminants by mechanical means such as bush hammering, grinding or abrasive blasting. Apply epoxy before the cleaned substrate becomes contaminated.

Test Substrate for Cleanliness and Adhesion

Before placement of the product test the cleaned concrete substrate for soundness and cleanliness with a Tensile Pull Test ACI 503 R (min.200 psi) or Crown Polymers Surface Shear Test. 100% concrete must fail to pass either test without bond line failure.

Preconditioning the Polymer

When temperatures drop, it becomes harder to spread the epoxy. To improve the flow-ability and curing time at lower temperatures preheat each epoxy component to 90°F (32°C) before mixing. Caution: the working time (pot life) will be reduced by about 50%. Preheat product before mixing and use when temperature is below 65°F(18°C).

Mechanical Mixing

Pre-mix each component. Place one part component "B" into 2 parts component "A" and mix for 1 minute with a low speed paddle attached to a drill (300-600 rpm) until a uniform color develops without any streaks. Mix only that quantity that can be used within its pot life. Smaller quantity requirement may be mixed with hand tools.

Application Method

Refer to Crown Polymers Application Method Guide and Specifications

Single Source Supplier

Expert technical advice combined with design and style

Crown Polymers delivers high performance polymer floor systems, coatings, precast covings, and concrete repair products of quality, economy and durability.

Our knowledgeable technical sales staff combined with highly skilled factory trained applicators ensure the success of the markets we serve.

Crown Polymers works closely with the architect, engineer, owner and contractor with strong specifications and field support to obtain quality results.

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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CALL NATIONWIDE TOLL-FREE 1-888 / 732-1270

Limitations

Minimum substrate & ambient temperature is 40°F (5°C)
DO NOT THIN - solvents **will** prevent proper cure.
DO NOT PLACE EPOXY IF ICE IS PRESENT.

Clean-up

Components "A" & "B" - Ventilate area. Control spills. Collect with absorbent material.

Disposal

Dispose in accordance with current, applicable local, state, and federal regulations.

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" – Irritant / Corrosive

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

Important Information and First Aid

Use of safety goggles, chemical-resistant gloves, adequate ventilation and NIOSH/OSHA approved respirator is recommended. 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 a physician immediately. Wash clothing before re-use.

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