

# CrownWeld<sup>™</sup> Pro MV

## Product Description Sheet No. 103

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## STRUCTURAL, MEDIUM VISCOSITY ADHESIVE FOR CRACK REPAIR, ANCHORING, CONCRETE STRENGTHENING SYSTEMS, AND NARROW VOID GROUTING

### Description

**CROWNWELD PRO MV, Product No. 103** is a 100% solids, 100% reactive, moisture-insensitive, non-shrink, medium viscosity, 2 component modified epoxy adhesive formulated to adhere and cure on dry, damp or under water surfaces.

### Advantages

- Excellent Working Time
- Cures and Adheres on Dry or Wet Surfaces
- Excellent Chemical Resistance & Fast Cure
- Applicable / Curable to 20°F
- Excellent Strength Properties
- Penetrates Down to 20 Mils
- Requires only 14 psi Pumping Pressure-VERY SAFE
- High Vibration Resistance
- Excellent Chemical Resistance for Floors and Containment Areas.
- Helps earning LEED<sup>®</sup> points

### Where to Use

Use an Adhesive for Structural Bonding and Grout for:

- Concrete Crack Repair
- Narrow Void Grouting
- Anchoring
- Delamination Repairs
- Structural Strengthening Systems
- Wood Crack Repairs
- Honey Comb & Sand Striking Repairs

### Packaging

12 Two Component Cartridges/Case  
4 - 1 Gallon Units / Case  
5 Gallon Pails & Drums on Request

### Typical Data for CrownWeld Pro MV

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

**COLOR** Straw                      **VISCOSITY** 2,000-2,500 cps

**POTLIFE** 7 - 15 minutes      **CONSISTENCY** Flow able

#### TACK-FREE TIME

|                       |            |            |            |
|-----------------------|------------|------------|------------|
| Substrate Temperature | 20°F *     | 73°F       | 90°F       |
|                       | 1 - 4 hrs. | 1 - 4 hrs. | 1 - 2 hrs. |

#### TENSILE PROPERTIES (ASTM D 638) 5 Days

|                       |                       |
|-----------------------|-----------------------|
| Tensile Strength      | 8,300 psi             |
| Elongation at Break   | 2.8 / 5.0 %           |
| Modulus of Elasticity | 4.2 X 10 <sup>5</sup> |

#### FLEXURAL PROPERTIES (ASTM D 790) 5 Days

|                               |                       |
|-------------------------------|-----------------------|
| Flexural Strength             | 10,600 psi            |
| Tangent Modulus of Elasticity | 9.1 X 10 <sup>5</sup> |

#### SLANT SHEAR STRENGTH (ASTM C 882) 5 Days

|                  |           |                       |
|------------------|-----------|-----------------------|
| Test Temperature | Value     | Mode of Failure       |
| 90°F             | 5,150 psi | 100% Concrete Failure |
| 20°F             | 4,900 psi | 100% Concrete Failure |

#### COMPRESSIVE STRENGTH (ASTM D 695)

|        |            |            |            |
|--------|------------|------------|------------|
|        | 20°F *     | 73°F       | 90°F       |
| 2 hour | -          | 3,400 psi  | 7,100 psi  |
| 4 hour | 2,100 psi  | 4,900 psi  | 9,200 psi  |
| 8 hour | 3,300 psi  | 8,300 psi  | 10,700 psi |
| 1 day  | 6,100 psi  | 14,900 psi | 15,500 psi |
| 7 days | 15,500 psi | 15,600 psi | 15,600 psi |

Compressive Modulus                      2.0 X 10<sup>5</sup> psi

\* Pre-conditioned epoxy to 90°F before mixing

#### WATER ABSORPTION (ASTM D 570)

24 hours                      0.27%

#### DEFLECTION TEMPERATURE (ASTM D 648) 5 DAYS

Fiber Stress Loading = 264 psi                      179°F

#### SHELF LIFE

2 years in original unopened containers.  
Cartridges 1 year.

# CrownWeld Pro MV, Product No.103 Compliance

## AASHTO M - 235 AND ASTM C 881-90 SPECIFICATION Type 1 & 4 - Grade 2- Class A; B & C

### Surface Preparation

Concrete, stone, wood, steel, and other substrates must be clean and sound. Remove dust, grease, waxes, oils, curing compounds, coatings, 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 epoxy before flash rusting develops or the cleaned surface becomes contaminated.

### Preconditioning Polymer

When temperatures drop, it becomes harder to flow the epoxy as when the temperatures are warmer. To improve the flow ability at lower temperatures preheat each epoxy component to 90°F before mixing. Caution the pot life will be reduced by about 50% when mixing by mechanical means. It does not affect the epoxy when a static mixing tube is used for mixing.

### Mechanical Mixing

Mix Component "A" then pour Component "B" into "A" and mix for 90 seconds with a low speed paddle attached to a drill (400-600 rpm).

### Static Tube Mixing

When the epoxy is being mixed with a static mixing tube on a pre-filled Crown Polymer Cartridge or on an Injection Machine no pre-mixing is required.

### Limitations

- Minimum substrate and ambient temperature is 20°F.
- DO NOT THIN - solvents will prevent proper cure.
- DO NOT PUMP EPOXY IF ICE IS PRESENT IN CRACK OR VOID.
- Do Not Inject Cracks Greater than 1/4 in.
- Do not inject Delaminations Greater than 1 in.

### Application Crack Injection

Low or high pressure may be used. Low pressure is the safest and typically penetrates deeper into fissures and voids providing a better overall application and repair. Set injection ports over the crack at the appropriate spacing and seal the ports and the exposed surface area of the crack with Crown Crack Sealer, No.120; CrownBond, No.121; CrownPro Bond LTC, No.122 or CrownPro Spread UW, No.125 for splash zone or underwater requirements. When the surface sealer has become tack-free, inject the crack with CrownWeld Pro MV, No. 103 with a steady stream of epoxy and pressure. Consult with Crown Polymers Technical Staff for additional information on: Crack and delamination that are filled with water, in splash zone areas, or underwater. Request assistance on wood applications.

### 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 aliphatic and other 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/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."

For the Location of Your Nearest Crown Polymers Representative

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