

VC PRO MENDER 81/MENDER 91 FC):

HI-PERFORMANCE POLYURETHANE CRACK REPAIR SYSTEM

TECHNICAL DATA SHEET (TDS)

Description

Vital Coat's **Mender 81/Mender 91 FC (Fast Cure) Crack Repair System** is a two-part, high penetration, fast setting, polyurethane filler for repairing and re-building damaged and cracked concrete. This series includes either the **Mender 81 or Mender 91 FC** Part A and the **Mender Crosslinker** Part B components. The product is a 1:1 ratio, easy to mix system that is 98% solids and VOC compliant. The Mender System can be used to set anchor bolts, repair damaged control joints, fill spalling, and rebuild vertical curbing and steps. Sand or gravel (free of moisture) can be added to extend the volume of the material and acts as filler for repairing large spalls, holes and cracks. It has a fast cure time with excellent adhesion and its' low viscosity allows for fast turnaround of coating projects or as a standalone product.

Primary Applications

Vital Coat's MENDER Repair System is an excellent choice for many applications.

- Car Washes or Wash Bays
- Garage Floors
- Low Temperature Equipment
- Maintenance Facility Floors
- Industrial Shop Floors
- Bridges/Street Repairs
- Aircraft Hangars
- Leveling and Grade Matching
- Non-Moving Control Joint Fill
- Concrete Polishing

Features/Benefits

- Application temperature between 23°F to 100.4°F (-5°C to 38°C)
- Self-leveling and Self-priming
- Excellent for Industrial Floors
- Product cures in 5-10 minutes @ 71.6°F (22°C) with excellent adhesion
- Ready to Service in 10 to 20 Minutes

Technical Information

Property	Result
Mix Ratio, By Volume	1A:1B = 1:1
Mix Ratio, By Weight	A:B = 100:118
Pot Life (3.5oz)	3-5 minutes @77° (25 C°)
Volume Solids % By Weight	Part A:50% - Part B: 50%
Density (KG/L)	Part A:.94 - Part B: 1.12 - Mixed: 1.11
VOC(g/L) – When Catalyzed	509 g/L

VOC Content	509 g/L
Flash Point	100°F

Properties	
Property	Result
Tensile Strength (PSI), ASTM D638	4500-4800
Bond Strength (PSI), ASTM D4541	1900-2300
Hardness (Shore D), ASTM D2240	68-72
Viscosity @ 77°F (25°C)	Part A: 60 KU - Part B:60 KU - Mix: 60 KU
Compressive Strength (PSI MPA), ASTM D695	4200
Elongation at Break, ASTM D638	10%
Gloss/Sheen	60/Flat

Note Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity. High temp or humidity cause faster cure.*

Packaging

This product is available in 5 US Gal. Individual Component Pails or 10 US Gal. Kits

Coverage/Thickness

Varies – Dependent on depth and width of Crack or Spall

Storage/Shelf Life

Store in a cool, dry, well-ventilated area between 50°F and 80°F. Keep containers tightly closed and store away from heat, sparks, open flame or oxidizing materials. Extended storage at excessive temperatures may produce odorous and toxic fumes from product decomposition.

This product has a shelf life of up to one year in its original, sealed, unopened container. If product appears to be hardened or separated contact Vital Coat before use. Keep away from extreme cold, heat or moisture. Keep out of direct sunlight and away from fire hazards.

Directions for Use

Surface Preparation:

General: Surfaces must be dry, structurally sound, free of dust, dirt, and all other contaminants. New concrete must be properly cured for 28 days.

Note: Any oils or fats must be removed prior to product application. Do not apply to wet substrates. Chloride, moisture, and pH levels should be checked prior to application.

Mixing:

Shake or pre-mix each bucket for 30 seconds prior to mixing parts A and B together. The amount of material mixed should only be what can be utilized within the listed pot life of the product. The Mender System components are to be mixed at a ratio of 1 parts A to 1 part B (1A:1B) in clean mixing containers. Pour the correct ratio in and mechanically mix for 3 minutes using a Jiffy-style mixer or had mixer.

Optimal Conditions at Application

Surface Temperature	60°-82°F*
Liquid Temperature	45°-85°F*
Storage Temperature	45°-95°F*

Application:

Pour the mixed product on the prepared surface. Product can also be applied using a squeegee, or a squeeze bottle. A trowel is recommended if silica has been added.

Curing:

Do not touch treated surface during curing. Do not add water or allow water to come in contact while curing. Protect surface from debris coming in contact with surface while drying.

Drying/Cure Times

Tack Free Time @77°F 50% RH	15 Minutes
Full Cure	20 minutes @77° (25 C°)
Recoat (if necessary)	Should occur within 2 hours for proper adhesion

Note Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.*

Clean-up

Clean all application equipment with a specified cleaner. Once the material hardens, it can only be removed mechanically. If the product splatters, wash thoroughly with hot soapy water.

Precautions/Limitations

Minimum/Maximum temperature of substrate: 50°F / 86°F (10°C / 30°C)

Maximum relative humidity during application and curing: 85 %

Substrate temperature must be 5.5°F (3°C) above dew point measured

Humidity content of substrate must be < 4 % when coating is applied

Avoid exterior use on substrates at ground level

Health and Safety

Always wear proper safety equipment to protect eyes and skin. Keep a neat, clean mixing area to avoid potential safety issues. Make sure to read and understand all SDS sheets and become familiar with all application procedures and best practices. Recommended for use by professionals only! In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. For more information, consult the material safety data sheet.

Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

Important Notice

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