Quick Mender®

Rapid Repair and Primer
Technical Data Sheet

686 S. Adams St. | Kansas City, KS 66105 | (913) 321-9000 | www.versaflex.com

Selection and Specification Data

Description

Quick Mender® is a specially formulated, two-component urethane based rapid repair and primer. In its low viscosity formulation, **Quick Mender** may be used to repair or prime cementitious and porous masonry substrates. It's unique low viscosity formulation allows for excellent substrate penetration for improved adhesion.

Quick Mender may be applied at temperatures greater than –20°F by plural component sprayer, roller, squeegee, or broom. **Quick Mender** may be used with all **VersaFlex** rapid curing sealants and coatings for Interior and exterior application.

Features

- Repairing spalls, dusted concrete, and cracks
- Ideal as a horizontal resurfacing compound
- Low temperature repair and priming
- Easily polishes for polished concrete floors
- Ultra-low for excellent penetration and absorption into porous substrates which seals the surface and reduces out-gassing
- Rapid cure and return to service
- Can be mixed with quartz sand to form a durable polymer concrete
- Can be thickened with fumed silica or Cabosil
- Can be applied by plural component spray, or mixed and applied by hand

Colors

Quick Mender is sold un-pigmented. Available Standard colors are Concrete Gray (VF1376) and Light Gray (VF1221). Custom colors are available by request. Custom colors are not returnable. Review the Versaflex "ColorFlex" color charts on www.versaflex.com for further information. In thicker builds, un-pigmented **Quick Mender** dries to a milky opacity.

Limitations

NOTE: **Quick Mender** should be shipped in heated transit when the temperature is expected to be less than 40°F for more than 24 hours. Prolonged exposure to low temperatures can negatively impact the processing and performance of the **Quick Mender.**

Physical Properties (Typical)

Description	Method	Result
VOC (g/l)	Theoretical	**388 g/l**
Solids Content	Theoretical	**61%**
Pot Life @ 77F	Internal	**2 –3 min.**
Working Time @ 77F—Neat Mix	Internal	**2—3 min.**
Working Time @ 77F—Aggregate	Internal	**5—6 min.**
Tack Free @ 77F	Internal	**15 min.**
Open to Traffic @ 77F	Internal	**30 min.**
Tensile Strength	ASTM D638	**> 3,300 psi**
Tensile Elongation	ASTM D638	**> 4%**
Die C Tear Strength	ASTM D624	**> 180 pli**
Shore D Hardness	ASTM D2240	**> 60**
Tabor Abrasion (H-18, mg loss)	ASTM D4060	**< 1000 mg**
Adhesion to Steel	ASTM D4541	**> 500 psi**
Adhesion to Concrete	ASTM D7234	**> 200 psi**

The value ranges stated in this Technical Data Sheet are based on system processing under controlled laboratory conditions. Equipment configuration and/or field application conditions may produce variances in the final system values.

Coverage Rate

Quick Mender is designed for a concrete, masonry, and other cementitious substrates. Application method, substrate roughness, profile, and porosity will effect coverage rates. Contact VersaFlex for recommended coverage rate.

Typical coverage rate is 130—200 ft^2 per gallon.

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Substrate and Surface Preparation

General

Prior to coating, the substrate must be prepared in a manner that provides a uniform, clean, sound, neutralized surface suitable for the specified coating. The substrate shall be free of all contaminants, such as oil, grease, rust, scale or deposits. The substrate shall be free of all dirt, dust, debris, and deleterious material. Coating performance is dependent on the degree of surface preparation.

Maximum Moisture Content Concrete

Calcium Chloride Test – 3 lb./24 hr./1,000 ft²

5% maximum as per ASTM F2160 or ASTM F2420

Concrete & Masonry

Reference SSPC-SP 13/NACE No. 6 Surface Preparation of Concrete. Minimum surface profile equivalent to ICRI CSP3 to CSP5 in accordance with ICRI Technical Guideline No. 03732.

Other Substrates

Contact VersaFlex Technical Services for more information. Do not apply to non-porous substrates or substrates susceptible to damage from solvents such.

Mixing, Thinning, and Pre-Warming

Components & Mix Ratio

- Mix ratio is 1:1 by volume
- Mix pigmented B side prior to combining
- Measure each component using metered buckets
- Drill mix at low speed for 10 seconds

Thinning:

DO NOT THIN

Polymer Concrete

Pre-mix A and B components prior. Slowly add 30 mesh quartz silica or fumed silica to desired viscosity. Do not exceed 1:4 liquid to solid loading

Pre-warming:

A and B components should be warmed to a minimum of 50°F prior to mixing.

Application and Equipment Guidelines

Polymer Concrete

Quick Mender® can be installed as a polymer concrete patching and repair material on horizontal surfaces to strengthen “dusted” or spalled concrete, as a leveler and resurfacing compound, or to repair damaged joint headers.

Be sure to remove and loosely adhering or spalled substrate prior to repair.

Prime the area to be repaired using **Quick Mender®** in the neat form to prevent liquid material absorption of the polymer concrete.

Combine A & B components prior to adding aggregate. Follow all mixing and material handling recommendations.

A 20-30 mesh Quartz Silica is recommended.

Liquid to aggregate mix ratio will vary based on aggregate size and selection. A 1:3 mx ratio is recommended as a starting point. Always try a small amount to determine working time and workability prior to placement. DO NOT exceed a 1:4 mix ratio.

Repair patches may be prepared using traditional surface preparation methods after 1 hour. Do not use wire wheels or brushes as this can cause burnishing .

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Application and Equipment Guidelines

Primer

Quick Mender® can be installed by plural component sprayer, roller, brush, broom or squeegee. Install at temperatures greater than –20˚ F. Application methods should be adjusted based on surface profile and roughness. Additional coats my be needed based on material absorption and substrate porosity. Avoid pooling or puddling.

When working on horizontal surfaces pouring the batch out onto the substrate will extend the working time and improve penetration into porous substrates.

Hand Mix

Follow all mixing and thinning instructions. Detail work should be done with a roller or brush. Larger areas are more easily covered using a broom or soft silicone or foam squeegee.

Plural Component Sprayer

Use a plural component pump and a direct impingement mix spray gun. A back roll or broom back is still required to ensure proper coverage, and absorption. DO NOT use static mix as primary mixing mechanism. Contact VersaFlex for additional equipment set-ups and recommendations.

Recommend Equipment Operating Parameters

Do NOT heat **Quick Mender®**

Dynamic Pressure	900—1200 psi
Dynamic Pressure Differential	< 100 psi

Recommended Proportioning Equipment

Graco Reactor series proportioners are acceptable. If using a gear type pump, contact the pump manufacturer to ensure the pump is designed for the **Quick Mender** viscosity.

Recommended Spray Gun Configurations		
Graco	Fusion AP	AR/AF 2929 AR/AF 3737 AR/AF 4242
Graco	Fusion MP	MR/MF 3535 MR/MF 4747
Graco	Probler P2	00 - 02

Application and Service Conditions

Environmental & Substrate Conditions

Material and equipment temperatures must be kept at 50°F or above. Lower substrate and ambient temperatures will reduce cure time.

Substrate temperatures must be greater than –20°F.

The substrate must be 5°F above dew point and rising before application of coating materials.

If the substrate is below freezing, tradition methods of determining moisture content are not effective. Additional steps should be taken to ensure moisture content is less than 5%. Refer to the Installation Guide for more information.

Service Temperatures (Temperature Resistance)

Dry temperature resistance is -40°F to 250°F.

Limitations

Quick Mender is not designed as an exposed finished coating system. Prolonged exposure to UV will degrade the primer. **Quick Mender** is hydroscopic. Exposure to moisture during storage or after installation while the material is still curing will negatively effect the material performance.

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Curing Schedule, Re-Coat Windows, and Top Coats

Cure Time

Full cure is achieved in 14 days @ 72°F.

Top Coating

Quick Mender can be top-coated after curing for 30 minutes at 77°F. Primer will be hard and not indented with a thumb nail. Colder ambient and substrate temperatures can lengthen cure times. Consult VersaFlex Technical Service for product and application recommendations.

Re-coat Time

Quick Mender can be re-coated up to 24 hrs. after application at 72°F. Warmer temperatures will reduce the re-coat window. If the re-coat window is exceeded, additional preparation is required. Prior to coating, primed substrate shall be clean, dry, and free of all dirt, dust, debris, contamination, or deleterious material. Consult VersaFlex Technical Service for product and application recommendations.

Cleanup and Safety

Cleanup

Cured product may be disposed of without restriction. Excess material should be mixed together and allowed to cure and disposed of in a normal manner. Product containers that are "drip free" may be disposed of according to local, state, and federal laws.

Caution: Quick Mender contains isocyanate. All safety precautions must be followed including proper skin protection and breathing protection. Consult SDS for proper safety suggestions.

Safety

Read, understand, and follow all recommendations on the SDS. Review SDS at www.versaflex.com

Wash thoroughly after handling, and before eating, drinking, or smoking. Have proper First Aid and PPE on site prior to opening or processing the material. Use chemical safety glasses, or goggles with splash shields. Use impervious body coverings including long sleeve clothing and boots. Use neoprene or nitrile chemical resistant gloves. Use a combination particulate filter and organic vapor respirator.

Packaging, Handling, and Storage

Packaging

Quick Mender is available in **2-gallon, 10-gallon, and 110-gallon kits.** The containers are filled by weight.

Shelf Life and Storage

One year from date of shipment, in original, unopened factory containers, stored in a sheltered area between 60°F - 95°F. Seal tightly after use to prevent introduction of moisture laden air. Store open 'A' side with a nitrogen cap after each use.

Warranty

Limited Warranty. Company warrants its goods to be free of manufacturing defects. Goods manufactured by Company will comply with all applicable federal, state and local laws and regulations. Company makes no warranty as to any parts or equipment manufactured by others. Customer shall look solely and only to the manufacturer of such parts or equipment with respect to any warranty claims. Company hereby assigns to Customer the original manufacturer's warranties to all such equipment and parts, to the full extent permitted. THE AFORESAID IS THE EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. SPECIFICALLY, THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

Limitation of Liability. COMPANY'S LIABILITY FOR DEFECTIVE OR NON-CONFORMING GOODS SHALL BE LIMITED TO, AND SHALL IN NO EVENT EXCEED, THE AMOUNT PAID BY CUSTOMER FOR SUCH DEFECTIVE OR NON-CONFORMING GOODS. UNDER NO CIRCUMSTANCES SHALL COMPANY BE LIABLE FOR ANY SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR LOST PROFITS. In no event may any claim by Customer arising from or relating to any sale of any goods or services referenced herein be brought more than one year after the date of delivery of such Goods.