

Mainstay[®] ML-Flex[™]

Flexible Cementitious Waterproofing Membrane



FEATURES/BENEFITS

LOW ODOR	SUITABLE FOR LIGHT TRAFFIC
NO SOLVENT	SUITABLE FOR PEDESTRIAN TRAFFIC
SELF-CURING	MAY BE USED ABOVE OR BELOW GRADE
PERMANENT FLEXIBILITY	MAY BE APPLIED TO DAMP SUBSTRATES
MOLD AND MILDEW RESISTANT	SUITABLE FOR PERMANENT IMMERSION

PRODUCT DESCRIPTION

MAINSTAY ML-FLEX Flexible Waterproofing Membrane is a cementitious, acrylic based, flexible waterproofing membrane and coating. It produces excellent adhesion to properly prepared substrates. **ML-FLEX** seals rough, deteriorated surfaces, and resists negative side and positive side hydrostatic water pressure. **ML-FLEX** is suitable for permanent water immersion service.

MAINSTAY ML-FLEX is used primarily to waterproof concrete structures above and below grade and as a lining inside in aquariums, zoos, fountains, water features, planters, and reservoirs. **MAINSTAY ML-FLEX** is a two-component material consisting of a powder component A and a liquid acrylic component B. **MAINSTAY ML-FLEX** exhibits 50% elongation at break (at 70° Fahrenheit per ASTM D-412). **MAINSTAY ML-FLEX** will bridge static hairline cracks, but has limited ability to bridge cracks that move over time.

PRODUCT DATA

COMPOSITION:

This is a two component product. Component A is a mixture of cement, silica fillers, and admixtures. Component B is a proprietary acrylic solution.

COLOR:

Standard: gray, off-white.

COVERAGE PER 4 GALLON KIT:

At 60 mils: ~105 square feet (ft²)

At 80 mils: ~80 ft²

At 90 mils: ~70 ft²

Allowances should be made for waste.

THICKNESS:

60-90 mils in two coats, depending on the application and substrate roughness. Consult a Madewell Technical Representative for specific recommendations.

PACKAGING:

Normally stocked in 4-gallon, two-component kits.

SURFACE PREPARATION:

Prepare surfaces to be repaired by Low Pressure Water Cleaning (LP WC, 4,000 psi minimum), abrasive blasting, hand, or power tool cleaning to remove all unsound concrete, contaminants,

dirt, debris, and/or deteriorated reinforcing steel. Refer to the International Concrete Repair Institute (ICRI) technical guideline titled *Surface Preparation Guidelines For The Repair Of Deteriorated Concrete Resulting From Reinforcing Steel Oxidation* and/or contact a Mainstay Technical Representative for information on removal techniques that are best for your application. Surfaces should have a minimum ICRI Concrete Surface Profile (CSP) #5 (preferably with aggregate exposed) and should be inspected for soundness prior to the application of **MAINSTAY ML-FLEX**. Saturate all surfaces thoroughly with clean water and allow to surface dry just prior to the application of **MAINSTAY ML-FLEX**.

MIXING:

Place the contents of the two gallon bucket (component A) into an empty 5 gallon bucket. Slowly add the powder (component B) while mixing. After all of the A and B component are added together and mixed, a small amount of

water (typically less than 8 ounces) may be added to adjust the mixture depending on the application method. Smaller quantities may be mixed at a **weight ratio** of 5 parts component A to 2 parts component B. Mix thoroughly using a gasoline, electric, or hydraulically powered paddle-type mixer. **Trial batches and testing are recommended before construction start up.**

SMOOTHING ROUGH SUBSTRATES &

FILLING VOIDS:

Rough or deteriorated concrete should be smoothed and/or repaired using **MAINSTAY ML-72** or **MAINSTAY ML-72F** Sprayable Microsilica Restoration Mortar – see applicable product data sheets or contact a Madewell Technical Representative for more information.

WORKING TIME:

Approximately 30 minutes at 80° Fahrenheit (F). The working time will be extended at lower temperatures and shortened when higher.

APPLICATION:

MAINSTAY ML-FLEX must be applied in two coats. **ML-FLEX** may be applied by low to medium velocity wet mix shotcrete equipment (pneumatic spray) or by hand using a trowel. A variety of piston, systolic, and rotor/stator pumps may be used depending on job requirements and desired production rates. Consult a Madewell Technical Representative for information regarding equipment that is best suited for your job.

Do not apply **ML-FLEX** at temperatures below 40° F or to surfaces treated with crystalline waterproofing products (i.e. Xypex® or similar). Use caution when applying in dry, windy weather and/or direct sunlight, as this may cause surface skinning and subsequent bubbling.

STATIC AND DYNAMIC CRACKS:

MAINSTAY ML-FLEX will bridge static cracks but is not designed to bridge cracks that move. Consult a Madewell Technical Representative for information regarding treatments for sealing moving cracks.

FINISHING:

MAINSTAY ML-FLEX can be finished using a steel trowel, wood float, sponge float, broom, or brush, depending on the surface texture desired.

CURING:

MAINSTAY ML-FLEX is a self-curing product. Do not apply water during cure. **ML-FLEX** cures faster with

good ventilation, moderate temperatures, and low relative humidity. Poor ventilation, low temperature, and high relative humidity will slow the cure of **ML-FLEX**.

OUTSIDE EXPOSURE:

MAINSTAY ML-FLEX has limited resistance to ultraviolet exposure and should be topcoated with a high quality exterior acrylic paint for UV protection.

CLEAN UP:

Clean equipment and tools with clean tap water.

DELIVERY & STORAGE:

Check containers for damage, and verify quantities before accepting shipments. Store **MAINSTAY ML-FLEX** in a cool, dry place.

SHELF LIFE:

1 year, depending on storage conditions, subject to reinspection thereafter.

SAFETY:

KEEP OUT OF REACH OF CHILDREN.

FOR INDUSTRIAL USE ONLY.

MAINSTAY ML-FLEX contains portland cement and chemicals that *MAY CAUSE EYE, SKIN, RESPIRATORY, OR NERVOUS SYSTEM SENSITIZATION*. Adequate health and safety precautions should be observed during all storage, handling, use, and drying periods. For best results and safest usage, user is specifically directed to consult the current Safety

Data Sheet for this product. When using this product in a confined space or closed area, consult the current the Occupational Safety and Health Administration (OSHA) or American National Standards Institute (ANSI) bulletins on safety requirements. Do not take internally. If swallowed, call a physician immediately. Keep away from open flame, and keep containers tightly closed when not in use.

WARRANTY:

All technical data, recommendations, and services are rendered by the Seller gratis. They are based on technical data that the Seller believes to be reliable and are intended for use by persons having skill and knowledge at their discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by the Buyer whether as recommended herein or otherwise. Such recommendations, technical advice, or services are not to be taken as a license to operate or intended to suggest infringement of any existing patent. MADEWELL PRODUCTS CORPORATION MAKES NO GUARANTEE OR WARRANTIES EXCEPT AS OTHERWISE PROVIDED IN WRITING AND DISCLAIMS ANY AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Xypex® is the registered trademark of Xypex Chemical Corporation.