

# Mainstay® ML-72FS™

## Fast Setting High Strength Patching Mortar



### FEATURES/BENEFITS

LOW PERMEABILITY	HIGH BUILD
EASY TO USE AND FINISH	QUICK SETTING
WATERPROOFS/DAMP-PROOFS	NON SHRINK/CRACK RESISTANT
HIGH EARLY AND ULTIMATE STRENGTH	RESTORES DETERIORATED SURFACES

### PRODUCT DESCRIPTION

**M**AINSTAY ML-72FS is a fast set, single-component blend of portland cement, microsilica, thermoplastic fiber, densifiers, admixtures, and other modifiers. **MAINSTAY ML-72FS** is fast-setting (approximately 15 minutes), which makes it ideally suited for filling large voids in manholes or concrete walls, reconstructing manhole inverts, and making repairs in pipes and pipe inverts. **MAINSTAY ML-72FS** produces excellent adhesion to properly prepared existing concrete, brick, or steel surfaces.

**MAINSTAY ML-72FS** can be used to patch holes, voids, cracks, and other defects in vertical, horizontal, and overhead surfaces of deteriorated steel and concrete structures such as manholes, lift stations, wet wells, sewer pipes, culverts, pits, sumps, trenches, or any structure that has experienced deterioration from exposure to aggressive environments.

### PRODUCT DATA

#### COMPOSITION:

A proprietary mixture of special cements, silica fume, thermoplastic fibers, and modifiers.

#### COLOR:

Dark gray.

#### YIELD:

0.323 cubic feet (ft<sup>3</sup>) per 50-pound (lb) bag when mixed correctly.

#### COVERAGE:

Approximately 10 square feet (ft<sup>2</sup>) per bag at 1/2". Allowances should be made for waste.

#### THICKNESS:

Depends on the application. 1" is generally sufficient for smoothing concrete that has experienced surface attack (exposed aggregate). Minimum thickness is usually 1/2". Consult a Mainstay Technical Representative for specific recommendations.

#### PACKAGING:

Stocked in 50-lb bags.

#### 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-72FS**. Saturate all surfaces thoroughly with clean water and allow to surface dry just prior to the application of **MAINSTAY ML-72FS**.

#### MIXING:

Add 0.75 gallons of clean water per 50-lb bag. Mix thoroughly using a gasoline, electric, or hydraulically powered paddle-type mixer. Additional water, up to 1 pint per bag **MAXIMUM**, may be added to increase workability. **Trial batches and testing concrete materials are recommended before construction start up.**

#### WORKING TIME:

Approximately 15 minutes at 80° Fahrenheit (F). The working time will be extended at lower temperatures and shortened when higher.

#### APPLICATION:

**MAINSTAY ML-72FS** is usually applied by hand using a trowel.

#### FINISHING:

**MAINSTAY ML-72FS** can be finished using a steel trowel, wood float, sponge float, broom, or brush, depending on the surface texture desired. If **MAINSTAY ML-72FS** is to be top-coated, it is recommended that the surface be finished to a smooth, somewhat

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grainy texture using a sponge or wood float.

**CURING:**

If applicable, **MAINSTAY ML-72FS** should be topcoated immediately after finishing or as soon as the surface becomes firm to the touch. If not topcoated, no special curing requirements are necessary when applied in moist subterranean structures. When placed under fast drying conditions (in direct sunlight, high winds, or high temperatures), **MAINSTAY ML-72FS** may be treated with a curing compound or wetted occasionally during the first 24 hours of cure to slow the evaporation of mix water.

**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-72FS** 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-72FS** contains portland and calcium aluminate 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 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.

Compressive Strength ASTM C-109	28 days	>8,000 psi
Bond Strength ASTM C-882*	28 days	>3,000 psi
Density		135 lbs/ft <sup>2</sup>

\*Uniaxial tensile bond strength should achieve a minimum of 1 Newton/mm<sup>2</sup> (145 psi) over a sound, properly prepared substrate. However, bond is highly dependent on degree of surface preparation and substrate strength.