

# Mainstay® DS-5™

## 100% Solids Epoxy Coating



### FEATURES/BENEFITS

ABRASION RESISTANT	HIGH MOISTURE CURE
PERMANENT FLEXIBILITY	SUPERIOR TOUGHNESS
GOOD VISIBILITY IN LOW LIGHT	SUPERIOR CHEMICAL RESISTANCE

### PRODUCT DESCRIPTION

**M**AINSTAY DS-5 100% Solids Epoxy Coating utilizes a unique, multi-component curing system that contributes to a number of superior properties: toughness, permanent flexibility, and improved chemical and temperature resistance. This system may be applied at thicknesses up to 125 mils in single or multiple applications, thereby reducing application costs. The absence of solvent reduces shrinkage, cracking, and disbonding and eliminates problems related to solvent entrapment. **MAINSTAY DS-5** is designed for use in corrosive environments with a pH of 0.5 or lower and is typically used as a topcoat over **MAINSTAY ML-72** Sprayable Microsilica Restoration Mortar (see section on Application). **MAINSTAY DS-5** is particularly well suited for protecting sanitary sewer structures such as manholes, lift stations, wet wells, and sewage treatment plant structures.

### PRODUCT DATA

#### COMPOSITION:

100% solids, modified epoxy coating.

#### FINISH:

Gloss.

#### COLORS:

Standard: white and light gray/blue; custom colors available.

#### THICKNESS:

50 to 125 mils in one or two coats, depending on the application. Consult a Mainstay Technical Representative for specific recommendations.

#### COVERAGE:

Approximately 16 square feet (ft<sup>2</sup>) per gallon at 100 mils; 72 ft<sup>2</sup> per 4.5-gallon kit at 100 mils. Allowances should be made for waste.

#### PACKAGING:

Normally stocked in 4.5-gallon, 15-gallon, or 150-gallon, two-component kits. Special packaging available.

#### SURFACE PREPARATION:

**Steel:** Apply only to clean, sound surfaces. All metal surfaces should be degreased and decontaminated prior to abrasive blast cleaning. For immersion service, surfaces should be abrasive

blast cleaned to a white metal (NACE No. 1 or SSPC SP 5) condition with a dense 2 to 4 mil anchor profile depth.

**Concrete:** Do not apply this product directly to concrete. At a minimum, concrete surfaces should be primed with **MADEWELL 927** Penetrating Epoxy Primer. Deteriorated concrete may be restored using **MAINSTAY ML-72** or **ML-72F** Sprayable Microsilica Restoration Mortar followed by **MADEWELL 927** Primer. Consult a Mainstay Technical Representative for specific recommendations or see appropriate product data sheets for additional information.

#### EXTREMELY ROUGH SUBSTRATES & DEEP VOIDS:

Extremely rough or deteriorated concrete could be more economically smoothed and/or repaired using **MAINSTAY ML-72** or **MAINSTAY ML-72F** Mortar – see applicable product data sheets or contact a Madewell Technical Representative for more information.

#### SMOOTHING MINOR SURFACE

#### IRREGULARITIES:

Use **MADEWELL 1312P** Sprayable Epoxy Putty to smooth minor surface irregularities (less than 1/8" deep).

#### PRIMING:

Not required for steel surfaces. Concrete surfaces should be primed with **MADEWELL 927** Primer. See product data sheet for surface preparation and application instructions. Apply **MAINSTAY DS-5** to primed surfaces when the **MADEWELL 927** Primer has cured dry to the touch (but as soon as possible thereafter to avoid contamination of the primed surfaces).

#### MIXING RATIO:

Mix components at a volume ratio of 2 parts A to 1 part B. Whenever possible, avoid mixing partial kits.

#### MIXING:

This is a two component system. All components (liquids A and B) should be between 70° Fahrenheit (F) and 90° F prior to mixing. The entire contents of each component should be thoroughly mixed individually before combining separate components together. If

it is not possible to mix an entire kit, pour carefully measured quantities of both components into a clean container and blend thoroughly using a power agitator, such as a Jiffy® mixer, and a high strength industrial drill for 3 minutes. Do not mix more material than can be used within stated working times.

**WORKING TIME:**

Approximately 45 minutes at 80° F. The working time will be extended at lower temperatures and shortened when higher.

**THINNING:**

Thinning is not recommended.

**APPLICATION:**

This product is to be applied by trained workmen using specialized equipment. Both components must be preheated between 70° F and 90° F prior to application. A minimum 56:1 airless spray pump with an air input pressure of ~90 pounds per square inch (psi) may be used to feed material through up to 50' of 3/8" diameter hose to a standard airless spray gun with a 0.031" to 0.035" reversible tip. It is recommended that 30 mesh in-line strainers/filters be used. Other equipment, such as whip hoses, heaters, or plural component equipment may be employed. **MAINSTAY DS-5** can also be applied by brush or roller. Contact a Mainstay Technical Representative for specific application equipment recommendations.

**MAINSTAY DS-5** can be applied to **MAINSTAY ML-72** or **ML-72F** within one to two hours after the **MAINSTAY ML-72** has been placed and finished (when the **MAINSTAY ML-72** or **ML-72F** has just become firm to the touch). The unique and essentially simultaneous application of these two products is the basis for the Mainstay Composite Liner™. The application of these two products by this technique should be performed by a contractor that has been licensed by Madewell Products Corporation to perform this type of work. Contact a Mainstay Technical Representative for

additional information regarding specific application instructions, applicator training, and contractor licensing.

**NUMBER OF COATS:**

Depends on service requirements. Generally speaking, linings or coatings for immersion service should be holiday free. The number of coats required to attain a holiday free lining or coating may vary depending on surface profile or roughness. Single coat applications should be done in multiple passes, each made at right angles to the last.

**CURE TIME:**

*Foot Traffic:* 24 hours at 70° F.

*Immersion Service:* 24 to 72 hours, depending on the chemical service and cure temperature.

**CLEAN UP:**

Use xylene or methyl ethyl ketone (MEK) to clean application equipment. Skin should be cleaned using warm, soapy water or commercial hand cleaner.

**THIRD PARTY TEST RESULTS:**

Compressive Strength (ASTM D 695)	>13,000 psi
Flexural Strength & Modulus (ASTM D 790)	>12,000 psi; >600,000 psi
Tensile Strength (ASTM D 638)	>6,000 psi
Durometer Hardness (ASTM D 2240)	>95
Taber Abrasion Resistance (ASTM C 501)	<20 mg loss

**DELIVERY & STORAGE:**

Check containers for damage, and verify quantities before accepting shipments. Store components in sealed containers in a dry environment at moderate temperature conditions (40° F to 80° F).

**SHELF LIFE:**

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

**SAFETY:**

KEEP OUT OF REACH OF CHILDREN.

FOR INDUSTRIAL USE ONLY.

**MAINSTAY DS-5** contains epoxy resins 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.

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