

# Mainstay® DS-5™

## High Build Epoxy Coating



### FEATURES/BENEFITS

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

### PRODUCT DESCRIPTION

**M**AINSTAY DS-5 High Build 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, disbonding and eliminates problems related to solvent entrapment. **MAINSTAY DS-5** is designed for use where corrosion is anticipated or known to be moderately aggressive (pH > 1.0, H<sub>2</sub>S < 100 ppm) and is particularly well suited for use as a topcoat over **MAINSTAY ML-72™** Sprayable Microsilica Restoration Mortar (see section on Application).

### PRODUCT DATA

#### COMPOSITION:

100% solids, chemically modified epoxy coating.

#### FINISH:

Gloss.

#### COLORS:

White, sky blue; custom colors available upon request.

#### RECOMMENDED THICKNESS RANGE:

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 kit at 100 mils. Allowances should be made for waste.

#### PACKAGING:

4.5 gallon, two component kits standard; special packaging available.

#### SURFACE PREPARATION:

**Steel:** Apply only to clean, sound surfaces. All metal surfaces should be degreased or otherwise decontaminated prior to abrasive blast cleaning. Surfaces should be abrasive blast cleaned to a near white (NACE No. 2 or SSPC

SP 10) condition with a 2 to 4 mil anchor pattern depth.

**Concrete:** Prepare all surfaces by removing surface contaminants such as old coatings, adhesives, curing compounds, dirt, efflorescence, grease, and similar substances. Surface contaminants must be removed by any effective combination of detergent scrubbing, pressure washing, high pressure water blasting, abrasive blasting, grinding, and/or scarifying.

Concrete that has been contaminated with oils, sugars, resins, or other contaminants that cannot be readily removed by the methods described above may require additional surface preparation by chemical cleaning, steam cleaning, or other surface treatment.

Acid etching is not recommended for the removal of surface contaminants prior to surface preparation or as a method of surface preparation.

Prepare all surfaces by shotblasting or abrasive blast cleaning to a minimum International Concrete Repair Institute Concrete Surface Profile #3 (ICRI CSP #3) condition. Small areas (less than

5% of total surface area) may be prepared by surface grinding followed by needle scaling, scabbling, or scarifying to a minimum ICRI CSP #3 condition. Abrasive blasting should produce a sound, slightly roughened surface free from laitance and contaminated or degraded concrete. Generally, a finer abrasive and a greater distance from the workpiece is employed than when abrasive blasting steel surfaces. It is important that the air supply and abrasive are free from harmful contaminants. All safety equipment and procedures required by the equipment manufacturer and the Operational Safety and Health Administration (OSHA) should be followed carefully. Self-propelled, self-contained shot blasting equipment has been shown to produce good results on concrete floor surfaces.

When in doubt, adhesion should be checked by the application of a test patch.

#### 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.

#### **SMOOTHING SLIGHT SURFACE**

##### **IRREGULARITIES:**

Slight surface irregularities should be smoothed and/or repaired using **MADEWELL 1312P™** Epoxy Putty or **MADEWELL 806™** Sprayable Flexible Joint Sealant & Underlayment – see applicable product data sheets or contact a Madewell Technical Representative for more information.

##### **PRIMING:**

Not required for steel surfaces. Existing concrete surfaces may be primed with **MADEWELL 927™** Penetrating Epoxy Primer/Sealer. Refer to the **MADEWELL 927** product data sheet or contact a Madewell Technical Representative for more information.

##### **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. Each component (liquids A and B) should be at room temperature (73° 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 pre-measured quantities of each component into a clean container and blend thoroughly using a power agitator, such as a Jiffy® mixer, and a high strength industrial drill for a minimum of 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 somewhat at lower temperatures and shortened at higher temperatures.

##### **THINNING:**

Thinning is not recommended. Use methyl ethyl ketone (MEK), xylene, or a combination of the two to clean application equipment.

##### **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 56:1 airless spray pump with an air input pressure of ~90 pounds per square inch (psi) is 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 60 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** within one to two hours after the **MAINSTAY ML-72** has been placed and finished (when the **MAINSTAY ML-72** 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 trained workmen. Contact a Mainstay Technical Representative for additional information regarding specific application instructions.

##### **CURE TIME:**

*Foot traffic:* 24 hours at 70° F.

*Immersion service:* 24 hours to 3 days, depending on temperature.

##### **CLEAN UP:**

Use MEK, xylene, or a combination of the two to clean application equipment. Skin should be cleaned using warm, soapy water or commercial hand cleaner.

##### **DELIVERY AND 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 re-inspection 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 "Material Safety Data Sheet" for this product. When using this product in a confined space or closed area, consult the current the 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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