

Mainstay® DS-4™

Ultra High Build Epoxy Coal Tar Coating



FEATURES/BENEFITS

VERY HIGH BUILD	IMPACT RESISTANT
ABRASION RESISTANT	HIGH MOISTURE CURE
PERMANENT FLEXIBILITY	SUPERIOR CHEMICAL RESISTANCE

PRODUCT DESCRIPTION

MAINSTAY DS-4 is a 100% solids, chemically modified epoxy coal tar coating that utilizes a unique, multi-component curing system that contributes to a number of superior properties such as toughness, permanent flexibility, and improved chemical and temperature resistance. This sprayable 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-4** cures relatively fast at 40° Fahrenheit (F) and under high moisture conditions—even underwater. This property enables field applications under a variety of weather conditions resulting in minimum downtime. **MAINSTAY DS-4** exhibits superior ultraviolet and sunlight resistance after years of exposure. **MAINSTAY DS-4** 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, modified epoxy coal tar coating.

FINISH:

Gloss.

COLOR:

Black.

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 (ft²) per gallon at 100 mils; 72 ft² per 4.5-gallon kit at 100 mils. Allowances should be made for waste.

PACKAGING:

Normally stocked in 4.5-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** Mortar followed by **MADEWELL 927** Primer. Consult a Madewell 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** Restoration Mortar – see applicable product data sheets or contact a Mainstay 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 may be primed with **MADEWELL 927** Penetrating Epoxy Primer/Sealer. See product data sheet for surface preparation and application instructions. Apply **MAINSTAY DS-4** 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 1 part A to 2 parts 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 thor-

oroughly 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 90° 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 from 70° F to 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 1/2" 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-4** can also be applied by brush or roller. Contact a Mainstay Technical Representative for specific application equipment recommendations.

MAINSTAY DS-4 can be applied to **MAINSTAY ML-72** Restoration Mortar 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 only be performed by contractors that have 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:

To Handle: 24 hours at 70° F.

Chemical or 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.

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-4 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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