

# Madewell® 1103™

## Epoxy Coal Tar Coating



### FEATURES/BENEFITS

IMPACT RESISTANT	HIGH BUILD
EXCELLENT ADHESION	100% SOLIDS
PERMANENT FLEXIBILITY	ABRASION RESISTANT
SUPERIOR CHEMICAL RESISTANCE	LOW TEMPERATURE/HIGH MOISTURE CURE

### PRODUCT DESCRIPTION

**M**ADEWELL 1103, a 100% solids, chemically modified epoxy coal tar coating, represents a major breakthrough in the performance of epoxy coal tar systems. Its unique, multicomponent curing system contributes to a number of superior properties: toughness, permanent flexibility, and improved chemical and temperature resistance. This sprayable system may be applied in thicknesses of 20 mils or more in a single application, which reduces application costs. The absence of solvent reduces shrinkage, cracking, and disbonding and eliminates problems related to solvent entrapment. **MADWELL 1103** 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. Common chalking, checking, and embrittlement problems associated with traditional epoxy coal tar systems are not present with this system.

**MADWELL 1103** meets the requirements of the American Society for Testing and Materials (ASTM) Specification C-541 and Performance criteria for the American Water Works Association (AWWA) Specification C-210.

### PRODUCT DATA

#### COMPOSITION:

100% solids, modified epoxy coal tar coating.

#### FINISH:

Semi-gloss.

#### COLORS:

Black and red.

#### THICKNESS:

20 to 30 mils, in one coat, depending on the application. Consult with a Madewell Technical Service Representative for specific recommendations.

#### COVERAGE:

80 square feet (ft<sup>2</sup>) per gallon at 20 mils; 360 ft<sup>2</sup> per 4.5-kit at 20 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 **MADWELL 927** Penetrating Epoxy Primer. Deteriorated concrete may be restored using **MAINSTAY ML-72** or **ML-72F** Sprayable Microsilica Restoration Mortar followed by **MADWELL 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** Mortar—see applicable product data sheets or contact a Madewell

Technical Representative for more information.

#### SMOOTHING MINOR SURFACE

#### IRREGULARITIES:

Use **MADWELL 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 **MADWELL 927** Penetrating Epoxy Primer/Sealer. See product data sheet for surface preparation and application instructions. Apply **MADWELL 1103** to primed surfaces when the **MADWELL 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 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 100° F. 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 45:1 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 60 mesh in-line strainers/filters be used. Other equipment, such as whip hoses, heaters or plural component equipment may be employed. Contact a Madewell Technical Representative for specific application equipment recommendations.

**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:* 36 hours at 70° F.

*Chemical or Immersion Service:* 24 hours to 7 days, depending on the chemical service and cure temperature.

If desired, or for certain chemical or high temperature applications, force curing for eight hours at 140° F or higher may be employed. Contact a Madewell Technical Representative for specific recommendations.

**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:**

3 years, depending on storage conditions, subject to reinspection thereafter.

**SAFETY:**

KEEP OUT OF REACH OF CHILDREN.

FOR INDUSTRIAL USE ONLY.

**MAINSTAY 1103** 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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