

### SYSTEM BENEFITS:

MAS Aqua Zone is a versatile 1:1 epoxy repair putty for use above or below the waterline. With its ability to cure underwater, high impact and abrasion resistance, this quick and easy repair putty is ideal for many applications. It has excellent sag resistance for application to vertical or inclined surfaces. The simple 1 to 1 mix ratio by volume consists of a yellow plus black makes green color change to ensure it's properly mixed. Once cured, Aqua Zone can be tapped, machined or drilled.

- Underwater cure allows for a variety of specialty applications
- Simple 1 to 1 mix ratio with color indication to ensure proper mixing
- Excellent sag resistance for vertical surface application

### HANDLING PROPERTIES

|                                      | MAS AQUA ZONE | Test Method      |
|--------------------------------------|---------------|------------------|
| Resin Color                          | Yellow        | Visual           |
| Hardener Color                       | Black         | Visual           |
| Resin Density at 25°C, lbs/gal       | 14.4          | ASTM D1475       |
| Hardener Density at 25°C, lbs/gal    | 13.4          | ASTM D1475       |
| Mix Ratio by Weight                  | 100A : 94B    | Calculated       |
| Mix Ratio by Volume                  | 1A : 1B       | Calculated       |
| Work Time at 70°F, mins              | 30            |                  |
| Time to Firm at 70°F, hours          | 2             |                  |
| Time to Full Hardness at 70°F, hours | 6-8           |                  |
| Vertical Sag Resistance, inches      | > 1.0         | Vertical Surface |
| Minimum Application Temperature, °F  | 50            |                  |
| Minimum Shelf Life, years            | 1             |                  |

### PHYSICAL PROPERTIES

|   | MAS AQUA ZONE | Test Method    |
|---|---------------|----------------|
| Color   | Dark Green    | Visual         |
| HDT, Room Temp Cure, °F                                 | 150           | ASTM D648      |
| HDT, Post Cure, °F                                      | 181           | ASTM D648      |
| Compressive Strength, psi                               | 12,900        | ASTM D695      |
| Flexural Strength, psi                                  | 7,900         | ASTM D790      |
| Flexural Modulus, psi                                   | 860,000       | ASTM D790      |
| Cured Density, g/cm <sup>3</sup> (lbs/in <sup>3</sup> ) | 1.66 (0.062)  | ASTM D792      |
| Volumetric Yield, in <sup>3</sup> /lb                   | 16.6          | ASTM D792      |
| Volumetric Shrinkage, %                                 | 2.55          | ASTM D792/2196 |
| Hardness, Shore D                                       | 90            | ASTM D2240     |

## **INSTRUCTIONS FOR USE:**

Remove all dirt, oil, grease, loose paint, rust, rotted and spalling concrete, rotted wood, marine growth and other interference materials. Adhesion of Aqua Zone will only be as good as the cleanliness of the substrate. Sand blasting is recommended.

## **MIXING:**

Combine 1-part Aqua Zone Resin to 1-part Aqua Zone Hardener (1A:1B) by volume. Scoop a quantity of one component from can by hand. Scoop out an approximately equal quantity of the other component. Mix by hand or with putty knife wearing gloves. Keep hand and material wet with water during mixing. Measure and mix only as much MAS Aqua Zone as can be applied in the indicated work life and apply at 50°F or above. Curing is slower at lower temperatures. Aqua Zone will not cure and adhere properly with temperatures below 50°F.

## **APPLICATION:**

Apply by hand wearing rubber gloves. Spread smoothly on surface in 1/8" to 1/4" layer using heavy hand pressure displace water and air bubbles. Smooth off by hand. When starting another handful, start spreading at and away from the previously applied film so as not to trap air bubbles or leave an area of uncoated surface. When used as a patch or grout, force material into hole or crack and smooth by hand to the thickness needed.

## **STORAGE:**

Store between 60-90°F in a dry place. After use, tightly reseal all containers and store products on a raised surface during cold weather and avoid storing near outside walls or doors. If available, Purge with dry nitrogen to preserve color and minimize moisture contamination. Do not allow to freeze during winter storage. Do not use material with any signs of crystallization such as solid chunks, grainy texture or white color. Crystallization can be reversed by heating the material to 125-140°F, and stirring occasionally, until all crystals dissolve.

## **SAFETY HANDLING:**

Wear protective gloves, clothing, and eye/face protection. Use only outdoors or in a well-ventilated area. Avoid contact to the skin and eyes. Avoid breathing dust, fumes, gas mist, vapors and spray. Wash hands thoroughly after handling. Take off contaminated clothing and wash before reuse. These products may cause skin and respiratory allergic reactions. Consult product Safety Data Sheets for complete precautions for use of this product.

Endurance Technologies, Inc. has experience only in the compounding of resins and hardeners and not in the actual manufacture of tools or parts. Each piece is different. The user should run tests to assure the suitability of the system for use in a particular application. The test data and results set forth herein are based on laboratory work and do not necessarily indicate the results that the buyer or user will attain.

Endurance Technologies, Inc. makes no warranty expressed or implied, including warranties of merchantability or fitness for a particular use. Under no circumstances will Endurance Technologies, Inc. be liable for incidental, consequential or other damages, alleged negligence, breach of warranty, strict liability, tort or any other legal theory arising out of the use or handling of this product.

Revised March 2020