

## PRODUCT DESCRIPTION

Ultra-Guard® TB 158 is a two-component, high-strength, low-viscosity structural epoxy designed to be used as a waterproofing membrane in the most challenging negative side applications. The low viscosity makes this an ideal product for crack penetration, gravity feed or patching. It can be used as a liquid binder for sand, aggregate or other mineral fillers to form cost-effective material to fill annular spaces. The resin cures in the presence of moisture, making it suitable for repair of the most challenging water penetration failures. The high compressive and tensile strength of this epoxy provide structural strength and can be combined with either Ultra-Guard® Carbon Wrap or Ultra-Guard® Glass Wrap for reinforced systems. The resin also provides excellent durability and chemical resistance. The convenient 2:1 volumetric mix ratio is user friendly. Ultra-Guard® TB 158 is a 100% solids formulation with low toxicity and low odor during cure.

## USES

- As a waterproof coating for negative side applications on CMU and concrete substrates.
- As a binder mixed with sand or pea gravel to fill annular spaces for repair
- In conjunction with glass and carbon scrims to make reinforced systems and crack repairs on walls.
- Can be thickened with silica (Cabosil, Aerosil) to make mastics for crack fill and heavy coats for vertical hang strength.

## ADVANTAGES

- High strength, high modulus, low-viscosity structural adhesive and impervious coating.
- Moisture insensitive – it cures in the presence of water
- Convenient easy mix ratio, 2:1 by volume.
- Can be thickened to apply heavy coats using silica.
- 100% solids, VOC free and Butyl Glycidyl Ether (BGE) free.
- Nearly odor-free.

## COVERAGE

As a waterproof coating the material will be applied in two coats per the application instructions to form a 50 mil thick coating (30 to 35 sq/ft per gallon). Apply as a filler material to fill all cracks and voids in concrete and masonry walls and slabs (will need to be thickened with silica). Application rate varies greatly based on the porosity and the volume of voids present in the structural area being repaired. For wider annular spaces, the epoxy can be mixed with clean silica sand and pea gravel (3/8 inch and under) for improved yield.

## PACKAGING

Each of the components is supplied in 1-gallon (3.8L) containers (2 pails of “A”, 1 pail of “B”). Ships DOT non-regulated.

## MIXING

Mix 2 parts resin “A” to 1 part hardener “B” by volume into a clean container. Mix thoroughly for 3 minutes using a paddle at low speed (400-600 rpm) to avoid air entrainment. Mix only the quantities that can be used within pot life. REMEMBER -- you will have less working time at higher temperatures. DO NOT THIN; solvents will prevent proper cure. If desired, silica sand and well-graded pea gravel (3/8 inch and under) can be added up to a maximum of 70 pounds sand and gravel per gallon of Ultra-Guard® TB 158.

## SHELF LIFE

2 years in original, unopened and properly stored containers.

## STORAGE CONDITIONS

Store at 55°-100°F (13°-38°C)

## APPLICATION

Prior to application the substrate or repair area should be free from dirt, debris, loose impediments, spalling and efflorescence. Where possible the substrate should be dry to maximize bond adhesion. If the substrate is damp to wet the epoxy membrane will still cure but will have greatly reduced adhesion.

As a waterproof coating: Properly mixed Ultra-Guard® TB 158 is recommended to be used in two coats. A prime coat of 10 mils at normal product viscosity. The second coat needs to be thickened using silica (Cabosil or Aerosil) before application and needs to be applied at a minimum 40 mils thick for a combined membrane thickness of 50 mils.

As a binder for annular spaces: mix dry silica sand, pea gravel (max 3/8 inch) as a filler to a max weight of 70 lbs per gallon to fill large annular spaces. Once parts “A” and “B” are mixed add the filler with slow mixing.

As a reinforced system with scrim for cracks, joints and repair with Ultra-Guard® Carbon or Glass Wrap: Apply a prime coat of 10 mils and then a thickened coat of 30-40 mils and embed the scrim. Apply an impregnation coat to the back of the scrim 20 mils thick.

All epoxy components shall be preconditioned to a temperature between 65°F (18°C) and 85°F (29°C) prior to the time of mixing.

# ULTRA-GUARD® TB 158

7 FLUID APPLIED | Membrane Waterproofing



## LIMITATIONS

Minimum application temperature of the epoxy is 45°F (7°C). DO NOT THIN this epoxy with solvents.

## CLEANUP

Uncured materials can be removed with approved solvent or warm soapy water. Cured materials can only be removed mechanically.

## SAFETY PRECAUTIONS

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions may cause high vapor concentrations. Do not weld on, burn or torch any epoxy materials as this will cause release of hazardous vapors. Consult SDS for detailed information. Service Dept. at 866-228-7743.

## EPOXY PROPERTIES

|  |   |
|--|---|
| <b>Color</b>                                     | Parts "A" and "B" are amber and gray liquid   |
| <b>Viscosity Mixed at 77° F</b><br>(ASTM D-2196) | 780 cps                                       |
| <b>Working Time</b><br>at 77° F (25° C)          | 20 minutes                                    |
| <b>Gel Time</b>                                  | 30 minutes                                    |
| <b>Weight</b><br>(Mixed) lb/gallon               | 9.21  |
| <b>Density</b><br>(Mixed) kg/liter               | 1.11  |
| <b>Tensile Strength</b><br>(ASTM D-638)          | 7,900 psi (54.5 MPa)                          |
| <b>Compressive Strength</b><br>(ASTM D-695)      | 11,200 psi (77.2 MPa)                         |
| <b>Elongation @ Break</b><br>(ASTM D-638)        | 4.8%  |
| <b>Adhesion to Concrete</b>                      | >400 psi (2.75 MPa); 100% failure in concrete |
| <b>Hardness, Shore D</b><br>(ASTM D-2240)        | 86  |



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