

ULTRA-FLEX ECO 5000™



ULTRA-FLEX ECO 5000™ (ECO – Ecological Friendly Formula) is a liquid, 2 component, asphaltic polyurethane containing reclaimed polymers, carbon black, anti-oxidants, UV stabilizers and anti-ozonates from recycled tires. Ultra-Flex ECO 5000™ that cures to form a water proof membrane that will adhere to steel, wood, concrete, OSB, ICF and most all construction surfaces. Ultra-Flex ECO 5000™ is a versatile self leveling material that flows with the contour of an applied substrate and will bridge cracks up to 1/8 inch. Ultra-Flex ECO 5000™ is UV and hydrolytically stable and will not degrade or become brittle over time or exposure to harsh climates.

Ultra-Flex ECO 5000™ uses licensed, patented technology (U.S. Patent No. 7,074,846 and Patents Pending) that incorporate post consumer recycled rubber and oils that when combined produce a superior liquid applied impermeable membrane.

Ultra-Flex ECO 5000™ comes in two configurations: ULTRA-FLEX ECO 5000™ Self Leveling that is formulated for horizontal and low slope surfaces that can be applied at the rate of approximately 60 mils per application and can be spray applied using plural component equipment. TG (TROWL GRADE) a high build material for filling and bridging large cracks, honeycombs, and vertical surfaces that will allow the applicator to achieve much thicker applications up to 120 mils per application using either plural component spray equipment or by hand troweling.

The working pot life for Ultra-Flex ECO 5000™ is approximately 45-50 minutes at 77°F. Shelf life for Part A is 5 years and the shelf life for Part B is 9 months.

Ultra-Flex ECO 5000™ comes in pre-measured containers, a 5 gallon bucket containing 4.7 gallons of Part A and a ½ gallon jug containing 3.8 pounds of Part B.

Ultra-Flex ECO 5000™ is applied as a part of a system and requires preparation of the substrate to be coated according to the material make-up. Please consult the Lava-Liner representative for any questions you may have before applying this material.

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Physical Properties

| Physical Properties | Test Method | Result |
|------------------------------------|-------------|--------|
| Tensile, psi | ASTM D-412 | >3100 |
| Elongation, % | ASTM D-412 | 130% |
| Moisture Vapor Transmission, perms | ASTM E-96 | 0.02 |
| Shore D Hardness, dmm (D) | ASTM D2240 | 40-50 |

Application:

All application shall be in accordance with specifications for a particular substrate and preparations shall conform to the same specifications for Ultra-Flex 5000™ as set forth in the Lava-Liner Industrial Repair Manual or Concrete Repair Manual or other specifications promulgated by the resident engineer.

Mixing by hand:

1. Open the 5-gallon Prepolymer Part A can. This will contain 4.7 gallons of material and when mixed with the Part B will provide 5 mixed gallons and a membrane approximately 50 mils DFT (Dry film Thickness) for a 138 square foot area when cured.
2. Pour the contents of the ½ gallon jug of Part B activator into the Part A and begin to mix immediately with the paddle mixer for a minimum of 3.5 minutes to insure a homogenous mix.
3. Prevent air bubbles from forming by mixing at approximately 300-500 rpm and do not fold or force the system to entrap air by causing a deep vortex in the can while mixing.
4. Once the Part A and Part B are mixed, it has a pot life of approximately 45 to 50 minutes within which the application can take place without substantial hardening of the mixture making it impossible to obtain an adequate coat to the substrate.

Plural Component Spraying:

Lava-Liner has identified a plural component spray machine that is compatible with the spraying of ULTRA-FLEX ECO 5000™ 2 component products. The Xtreme® spray machine has been tested and used by Lava-Liner at the International Technology Center in Minneapolis, MN. This equipment is recommended by Lava-Liner for any spray application that requires the ability to spray a product on a vertical surface and maintain a minimum thickness and fast setting material that has been designed by Lava-Liner to meet the demanding needs of spraying anti corrosion materials and waterproof membranes. You can view the equipment by visiting the GRACO website at: http://www.graco.com/Internet/T_PDB.nsf/SearchView/XtremeMix/ or visit our website at <http://www.Lava-Liner.com/video.htm> and watch our short video using the GRACO Xtreme® spray machine for ULTRA-FLEX ECO 5000™ polyurethane.

The Xtreme® equipment will result in added savings in time, reduced product waste and ease of application. The two components are kept separate until mixed in line within a static mixer. The proportions are easily set and all controls are electronic and digitally viewed. No mixing is required when using this machine and therefore pot life is also not an issue.



Patching and Repairing ULTRA-FLEX ECO 5000™ Polyurethanes:

1. When it is necessary to repair or patch ULTRA-FLEX ECO 5000™ the procedure for surface preparation should be followed as is set forth above. Additional steps should be taken before applying a new coat to the exposed surface to be repaired.
2. Clean the surface with mineral spirits or solvent.
3. Rough up the ULTRA-FLEX ECO 5000™ surface surrounding the breach or area to be repaired by about 2 inches beyond the area to be patched with 60-80 grit sand paper or a clean, oil free wire brush.
4. Wipe the roughened surface again with mineral spirits (naphtha solvent) to clean all of the debris that will form from sanding leaving the surface clean and dry.
5. Apply ULTRA-FLEX™ AP (Adhesion Promoter) to the roughened surface and allow drying for about 15 minutes.
6. Apply a freshly mixed coat of ULTRA-FLEX ECO 5000™ polyurethane to the area to be treated and all the way around the roughened area surrounding the surface to be coated.



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