



HIGHTECH
INDUSTRIAL COATINGS

EVOTECH 1000

TWO COMPONENT, MODIFIED POLYUREA PROTECTIVE COATING

PRODUCT DATA

Mix Ratio 1 Part A to 1 Part B

Coverage . . . 1600 sq. ft. at 1 mil.

Shelf life 12 months

COLOR PIGMENTS

Clear/Neutral.

Custom colors are available upon request. Color Packs, when used, must be added to Part-B.

Due to its aromatic composition, EVOTECH 1000 will tend to yellow or darken in color and will become flat after exposure to UV light. EVOTECH 1000 may be topcoated within twelve hours of application with an aliphatic polyurethane/ polyurea coating for a colorfast finish.

PACKAGING

10 Gallon Kit:

Part A (Isocyanate side)

One 5 Gallon Pail
(net 45 pounds)

Part B (Resin side)

One 5 Gallon Pail
(net 40 pounds)

PRODUCT DESCRIPTION

EVOTECH 1000 is a two component, 1:1, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

ADVANTAGES

- Seamless
- High Build
- Tough and Elastomeric
- Quick Drying
- Chemical Resistant
- Low Temperature Flexibility
- Abrasion and Impact Resistant

APPLICATIONS

- Truck Bed Surfaces
- Cargo Holds
- Utility Vehicles
- Horse Trailers
- Cargo liners
- Industrial Floorings
- Boat Linings
- Walkways
- Waterproof Decking
- Containment Areas
- Encapsulation of Fiberglass Bodies and Polystyrene Foams

COVERAGE

EVOTECH 1000 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Mix Ratio by Volume	1 Part A to 1 Part B	-
Pot Life at 150°F	2-5 seconds	-
Tack Free Time (150 mils thick)	10-30 seconds	-
Recoat Time	0-12 hours	-
Viscosity at 150-160°F (65.5-71°C) Brookfield	Part-A: 120 ± 20 cps Part-B: 200 ± 20 cps	-
Density (Side-A & B Combined)	9.1 lbs./gal	-
Flash Point	>200°F	-
Hardness	50 ± 5 Shore D	ASTM D-2240 *
Tensile Strength	2500 ± 300 psi	ASTM D-412*
Elongation	200 ± 20%	ASTM D-412*
Tear	300 ± 40 pli	ASTM D-624*
Service Temperature	-20°F to 250°F	-
VOC Content	0 gm/liter	-
Recommended Applied Thickness	> 2mm	-
Return to Service: Foot Traffic	> 1-4 hours	-
Return to Service: Full Service	> 24 hours	-

* These physical properties from sample sprayed with Hightech low pressure equipment @ 85°-105°F, using disposable static mixing tube or a mechanical purge gun. Different machines and parameters will change these properties. User should perform their own independent testing as properties are approximate.

SURFACE PREPARATION

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Hightech recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Hightech.

NEW AND OLD CONCRETE

Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shotblasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, sanding, crack repair and primers should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

CONCRETE SURFACE PREPARATION REFERENCE

ASTM D4258 - Standard practice for cleaning concrete. ASTM D4259 - Standard practice for abrading concrete. ASTM D4260 - Standard practice for etching concrete. ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete ICRI 03732 - Concrete surface preparation.

WOOD

All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Upon full cure of the repair agent, prime the entire surface intended for coating.

STEEL (ATMOSPHERIC AND IMMERSION EXPOSURE)

Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prime and shoot EVOTECH 1000 on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

ALUMINUM

Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

BRASS AND COPPER

Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

GALVANIZED SURFACES

Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

FIBERGLASS REINFORCED PLASTIC

The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

PLASTIC FOAMS

Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

TEXTILES, CANVAS, FABRICS

Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

STAINLESS STEEL

Stainless steel may be grit blasted and degreased before priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

NEW AND OLD CAST IRON

Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

ALL OTHER SURFACES

An adhesion test is recommended prior to starting the project.

MIXING

EVOTECH 1000 may not be diluted under any circumstances. Thoroughly mix EVOTECH 1000 Part-A (Isocyanate side) and Part-B (Resin side) with power equipment or shake vigorously for 1 minute until a homogeneous mixture and color is obtained.

APPLICATION

Both Side-A and Side-B materials should be preconditioned to 75-80°F before application.

Recommended surface temperature must be at least 5°F above the dew point.

EVOTECH 1000 should be applied using plural component, low pressure, 1:1 spray mixing equipment.

Both Part-A and Part-B materials should be sprayed at temperatures above 85°F. Adequate pressure and temperature should be maintained at all times.

EVOTECH 1000 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE

EVOTECH 1000 has a shelf life of six (6) months from date of manufacture, in factory-sealed containers.

Part-A and Part-B pails are recommended to be stored above 60°F.

Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B pails regularly.

LIMITATIONS

Do not open until ready to use.

Both Part-A and Part-B containers must be fitted with a desiccant device during use.

WARNING

This product contains Isocyanates and Curative Material.

LIMITED WARRANTY:

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Hightech representative or visit our website for current technical data and instructions.

Hightech warrants its products to be free of manufacturing defects and that they will meet Hightech current published physical properties. Hightech warrants that its products, when properly installed by a state licensed waterproofing contractor according to Hightech guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Hightech of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Hightech shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Hightech shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Hightech reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER:

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Hightech makes no claim that these tests or any other tests, accurately represent all environments

KEEP OUT OF REACH OF CHILDREN