



TEX SHIELD



TECHNICAL DATA SHEET

PRODUCT MANUFACTURER

Rex Innovations Inc
3-1415 Highway 582
Didsbury, AB CANADA T0M 0W0
833-739-2628

DESCRIPTION

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

COLOR

Clear/Neutral or Black. Custom colors are available upon request. Color Packs, when used, must be added to Part-B. Due to its aromatic composition, TEX SHIELD will tend to yellow or darken in color and will become flat after exposure to UV light. TEX SHIELD may be top coated within twelve hours of application with an aliphatic polyurethane/ polyurea coating for a colorfast finish.

PACKAGING

10-gallon kit: 5 gallons (47 lbs. net) Side-A (Isocyanate side) and 5 gallons (43 lbs. net) Side-B (Resin side).

100-gallon kit: 50 gallons (473 lbs. net) Side-A (Isocyanate side) and 50 gallons (neutral: 433 lbs. net, black: 435 lbs. net) Side-B (Resin side)

COVERAGE

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

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. Rex Innovations recognizes the potential for unique substrates from one project to another. The following information is for general reference,

and for project-specific questions, contact Rex Innovations.

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 shot blasting 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, Rex Innovations Products PC-260 or a mixture of UL 21 and sand 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.

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. Knots should be repaired using Rex Innovations Products PC-260 with sand. 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 UL 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:



TEX SHIELD



TECHNICAL DATA SHEET

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

TEX SHIELD may not be diluted under any circumstances. Thoroughly mix TEX SHIELD Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

APPLICATION

Both Part-A and Part-B material should be preconditioned at 80-90°F before application. Recommended surface temperature must be at least 5°F above the dew point. TEX SHIELD should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used. Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

TEX SHIELD should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE

TEX SHIELD has a shelf life of six (6) months from date of manufacture, in factory-sealed containers. Part-A and Part-B drums must 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 drums regularly.

EQUIPMENT CLEAN UP

Equipment should be cleaned with an environmentally safe, urethane-grade solvent (alcohol free) as permitted under local regulations immediately after use.

Mix Ratio by Volume	1A:1B
Pot Life at 150°F	2-4 sec.
Tack Free Time (at 150 mils)	10-30 sec.
Recoat Time	0-12 hours
Viscosity "A" side	120 ± 20 cps
Viscosity "B" side	190 ± 20 cps
Density (A & B side)	9.17 lbs./gal

CHEMICAL TECHNICAL DATA

Test Name	Test Method	Value
Hardness	ASTM D2240	55 ± 5 Shore D
Tensile	ASTM D412	2700 ± 300 psi
Elongation	ASTM D412	200 ± 20%
Tear	ASTM D624	400 ± 40 pli
Taber Abrasion 1000 cycles	ASTM D4060	20.67 mg
Impact Resistance	ASTM D2794	320 in. lbs. no failure
Poisson's Ratio & Precision Modulus	ASTM E132	Poisson - 0.47 Modulus - 19.38
DMA Test (Loss Modulus, E' Tg)	ASTM E1640	-49.2 °C

ADDITIONAL PRODUCT CERTIFICATIONS

- Complies with USFDA Coating Regulations for Incidental-Food-Contact Applications (Keller and Heckman LLP Letter of Opinion)



TEX SHIELD

TECHNICAL DATA SHEET



PRODUCT 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 user's 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 hazards listed herein are the only ones that 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 REX INNOVATIONS has no claim that these tests or any other tests accurately represent all environments