PolySpec® DEK

TECHNICAL DATA SHEET

Waterproof Membrane

DESCRIPTION

PolySpec® DEK Waterproof Membrane is a trowel applied, neoprene modified, elastomeric resin system reinforced with fiberglass matting. It is used to damp proof wet areas on ships and offshore drilling platforms.

TYPICAL APPLICATION

• Primer	410 Emulsion / LITE LATEX compo @ 1/8"
• Body Coat	407 Neoprene / Type M Fiberglass @ 30 mils
• Seal Coat	407 Neoprene @ 30 mils

PERFORMANCE DATA

Tensile Strength (ASTM D-751) ..... 43 psi
Water Absorption (ASTM-D-570) ..... Nil
Electrical Resistivity ..... Non conductive
(National Fire Protection Assoc Bulletin #99)
Elongation (ASTM-D-751) 535%
Moisture Vapor Permeability (ASTM-D-1653) ..... Nil

Waterproofness Drexel University Engineering Laboratory Test Procedure-Sample 8" diameter subject to 60 lbs. per inch water pressure for 60 mins. Test for amount of water forced through in grams.

STORAGE & INSTALLATION

Storage Environment ..... Dry area, 65–80ºF
Application Temperature, ambient 50–95ºF
Application Temperature, substrate ..... Minimum 5ºF above dew point
Service Temperature ..... Maximum 150ºF
Shelf Life ..... 12 months
Foot Traffic, @ 77ºF ..... 6 hours
Full Service, @ 77ºF ..... 24 hours

Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65ºF to 80ºF prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

CONSIDERATIONS & LIMITATIONS

1. Floors should be sloped to drain to prevent standing water or chemicals. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard.
2. Do not thin with solvents unless advised to do so by PolySpec.
3. Confirm product performance in specific chemical environment prior to use.
4. Prepare substrate according to "Surface Preparation" portion of this document.
5. Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab.
6. Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Material Safety Data Sheet for detailed safety precautions.
7. For industrial/commercial use. Installation by trained personnel only.

BENEFITS

- *Provides positive waterproofing barrier*
- *Remains flexible at a wide range of temperatures*
- *Reinforced with fiberglass for increased strength*
- *Follows the contour of floor*

RECOMMENDED USES

- *Showers*
- *Galleys*
- *Dishwashing and laundry rooms*
- *Mechanical equipment rooms*

GENERIC DESCRIPTION

Elastomeric Waterproof Membrane

PACKAGING/COVERAGE

Primer

410 Emulsion	5-Gallon Unit / 1000 sq. ft
LITE LATEX compo	50-Pound bag / 300 sq.ft

Body Coat

407 Neoprene	5-Gallon Unit / 400 sq. ft
Type M Fiberglass	Roll (700 sq. ft)

Grout Coat

407 Neoprene	5-Gallon Unit / 400 sq. ft

6614 GANT ROAD • HOUSTON, TEXAS 77066 • TEL: 281-397-0033 • FAX: 281-397-6512
www.polyspec.com

SURFACE PREPARATION

Steel: For immersion service, “White Metal” abrasive blast with an anchor profile of 2–4 mils in accordance with Steel Structures Painting Council Specification SP-5-63 or NACE No. 1 is required. For splash and spillage exposure, “Near White” SP-10-63 or NACE No. 2 is required.

Steel: For steel surfaces, a “Near White Metal” ultra high-pressure wash or abrasive blast with anchor profile of 2–4 mils in accordance with Steel Structures Painting Council Specification SP-10 or NACE No. 2 is required.

If a leveling coat is needed, apply PolySpec CLAD to the thickness required. If more than 1" (25mm) thickness is needed, contact the manufacturer for recommendations as to the proper materials to use.

Drains and Drainage

Sufficient slope must be provided to allow adequate runoff of the surface water. Standard practice calls for a pitch of 1/4" (6mm) to the foot for proper drainage. An insufficient pitch will keep water from properly draining off and puddles will occur. The pitch must be incorporated in the subsurface. PolySpec CLAD can be used to provide moderate slope for drainage where required. PolySpec DEK Waterproof Membrane can be installed up to the tip of the drain or, where possible, into the mouth of the drain itself. Additional information is available on drains from the manufacturer.

Cove Base

PolySpec DEK Waterproof Membrane must be installed as a cove base to provide positive waterproofing. Fiberglass strips 4" to 8" (100 to 200mm) wider than the height of the base should be used. This allows the membrane to extend out over the floor membrane making the base an integral part of the floor. The 407 Emulsion is installed with a brush on the base and out on the floor approximately 1/16" (1.6mm) in thickness. The mechanic should do small areas at a time, being certain to embed the mat into the 407 Emulsion while the 407 Emulsion is still wet. Apply additional 407 Emulsion to the excess that comes through the fiberglass to completely cover it.

Flashing and Counter-Flashing

Where a standard flashing is already in position prior to the application of PolySpec DEK Waterproof Membrane, it should be raised and the material worked up underneath. The manufacturer should be consulted for any specific problems involving flashing.

Columns, Posts, Fascia, Curbs and Equipment Pads

All projections through the deck shall receive prime coat and waterproof membrane.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

1. **Prime Coat:** If the substrate is porous, it is suggested that it be dampened with water until the porosity has been stopped. Do not leave puddles. This method will reduce the suction and keep the prime coat from drying too fast. After subfloor preparation, apply a scrape coat, in the form of a slurry, of PolySpec LITE LATEX Compo mixed with 410 Emulsion as follows:

   Into a clean 5 gallon container pour approximately 1-1/2 gallons of 410 Emulsion; then pour in 1 bag, (50 lbs.) of PolySpec LITE LATEX Compo and mix thoroughly with a mechanical mixer. Continue to mix until a slurry of uniform consistency is obtained. Coverage is approximately 300 sq. ft./mix.

   After the mixing is complete, use a steel trowel and vigorously apply the slurry as a scrape coat. Prime entire area and allow to dry.

2. **DEK Waterproof Membrane and Fiberglass:** The DEK Waterproof Membrane is a combination of 407 Emulsion and fiberglass reinforcement. 407 Emulsion is used as it comes from the container. Before application, contents should be thoroughly stirred. Under normal conditions, it requires 3 to 4 hours drying time. The horizontal areas are usually installed before vertical areas. The DEK Waterproof Membrane should always be installed over the prime coat and never directly on the substrate itself.

   The fiberglass should be rolled out over the deck or floor, taking care to see that the outer edge of the mat is parallel to the perimeter. It is important to install the first run of fiberglass straight, as the following runs will be controlled by it. A chalk line should be used to line up the edge of this first run, and the fiberglass should be laid on this line.

   The membrane should be installed to within 1/4" (6mm) of any vertical projection. The 407 Emulsion is trowel applied on the floor and the fiberglass is rolled into it and forced down into the 407 Emulsion with the trowel. Additional amounts of 407 Emulsion are applied on top of the fiberglass while smoothing it into place. It is important to have a full coat of 407 Emulsion over and under the fiberglass and to avoid any "dry pockets" in the membrane.

   Whenever a piece of fiberglass is to be laid over a previously installed piece, it must be overlapped a minimum of 3 to 4 inches (75-100mm). The 407 Emulsion is used between the overlapped sheets to adhere them to each other, and it is important to always go into wet 407 and not let it dry out before the sheets are adhered, otherwise delamination could occur.

   Allow the 407 Emulsion to dry for 3 to 4 hours and then apply a second full coat of 407 Emulsion over the entire surface, making certain that there are absolutely no pinholes or "holidays". After the coat has dried, inspect the membrane to be certain no pinholes exist. If there are any pinholes, apply additional amounts of 407 Emulsion to completely cover them.

   The DEK Waterproof Membrane must be installed on all vertical surfaces and projections through the floor. Fiberglass is embedded in the 407 Emulsion, as previously described for the floor membrane.

   When PolySpec DEK Waterproof Membrane is to be installed into drains, around pads and pipes, over curbs, etc., the same construction should be followed as for the cove base. Always be certain to install the membrane on the floor first, going up to but not touching drain, curb, pad, etc. Then install the membrane on the drain, curb, pad, etc., making certain to overlap the membrane on the deck by 4 to 6 inches (100-150mm).

C / DOC DEK 04004-0206-TDS Rev 11/06

TuffRez and PolySpec are ® Registered Trademarks of PolySpec L.P. © Copyright 2005 PolySpec L.P. All rights reserved. Published technical data and instructions are subject to change without notice. Please visit the online catalog at www.polyspec.com for the most current technical data and instructions. Or, you may contact your PolySpec representative for current technical data and instructions.