Technical Data Sheet (TDS)

ERP-270 Perma-Seal®

Epoxy Based Sealer (two component pail)

Special features

- Exceeds all ASTM-F3010-13 requirements
- Moisture barrier up to 25# or 100% RH
- Contains no water, solvents or VOCs
- Use under any flooring (wood, VCT, LVT, sheet vinyl, ceramic, etc.)

Product Description

STAUF ERP-270 Perma-Seal is a two component, epoxy reaction resin based sealer for professional flooring installation over damp sub floors. ERP-270 will mitigate moisture pressure from a humid sub floor to an acceptable level for any flooring installation. It will bridge minor cracks in the sub floor. ERP-270 spreads easily and creates a dust free surface ready for safe installation of flooring. It increases the bonding of subsequently applied primers, leveling compounds and/or adhesives.

Pre-Installation Checklist

A successful installation requires proper preparation of the sub floor. Read and understand all applicable guidelines and technical data sheets before installation. Follow industry standards and flooring manufacturer's recommendations for sub floor moisture content, design, layout and application of flooring materials. All slab constructions must meet the specific requirements of the floor covering to be installed.

Sub Floor Examination

Do not apply sealer onto a visibly damp or wet surface. Examine concrete sub floor for color, cleanliness, porosity and pre-existing residues PRIOR TO installation (for details see Technical Information #18 @ www.staufusa.com). Concrete sub floors must be checked for any contaminants and/or anti-adherents using the STAUF Epoxy Test Kit (for details see Technical Information #16 @ www.staufusa.com).
Prior to installation, the sub floor must be checked according to applicable installation guidelines. It must be solid and sound, clean, free of chaps and anti-adherents, as well as resistant to pressure and tension. Check for missing or compromised vapor barriers and hydrostatic pressure. Perform RH or CaCl moisture tests following ASTM standards. Results of 99% RH or 25# CaCl could indicate that there is a higher moisture content in the slab than what tests can measure and there might be hydrostatic pressure and/or a compromised or missing vapor barrier.

Sub Floor Preparation

The condition of the sub floor will determine which type of mechanical treatment is required (e.g. wire brushing, sanding, grinding or shot blasting). Dust, paint, curing compounds, sealers, residual adhesives or other surface pollutants MUST be removed by suitable means. Extent of sub floor preparation can only be determined at the site by the installer. Clean the surface with an industrial vacuum cleaner, tack or damp mop floor before application. Do not use sweeping compounds as most will contain oil or wax which will act as an anti-adherent and prevent primers, sealers, leveling compounds, coatings and/or adhesives from bonding to the concrete. Cracks and gaps must be treated prior to application of primers, sealers, leveling compounds, coatings and/or adhesives (for details see Technical Information #19 @ www.staufusa.com)

Mixing of Components

Lid contains hardener. Pierce all the way through plastic disc in center of lid and the bottom of the lid using a long screwdriver or similar tool. Let the hardener flow into the lower part of the bucket for one minute. All of the hardener must drain into the pail before mixing parts A&B. Open ring, remove the lid and mix both components with mixing paddle for at least 3 minutes. Use an electric drill with less than 300 rpm until an even color is reached. Avoid air entrapment by mixing slowly and using an appropriate mixing paddle. Make sure to mix along wall and bottom-part of the container as well. Temperature of both components should be at least 50 °F before mixing.

Installation Procedure

Mix pail according to mixing instructions. Empty pail onto floor immediately after mixing to prevent product from heating up and drying in the pail. Apply sealer undiluted with approved applicator. Make sure sealer is spread evenly and up to the perimeters. The spread rate is critical for a successful installation. Do not exceed the maximum coverage. For sub floor moisture up to 18#/24hrs/1,000SF (calcium chlorite test) or 97% RH (in-situ probe), spread ERP-270 over no more than 140 SF/gal. For sub floors with a moisture content up to 25#/24hrs/1,000SF (calcium chlorite test) or 100% RH (in-situ probe), spread ERP-270 over no more than 70 SF/gal. For use under resilient flooring please see Technical Information #4 @ www.staufusa.com for details.

Limitations

When using other than STAUF products in conjunction with STAUF primers, sealers, leveling compounds, or adhesives, STAUF denies any and all responsibility for any ensuing problems and/or damages without prior written authorization from STAUF.
Do not dilute primer/sealer or mix with other products.
In case of accident, injury, spill or exposure, see SDS sheet for information. Consult technical data sheet at www.staufusa.com for updated information.
Sealer will not prevent moisture damages from hydrostatic pressure, missing or compromised vapor barriers, underground springs, damaged water pipes, sinks, icemakers, faulty plumbing, flooding, etc.
The foregoing representations are based on the results of our most current product and material testing within a controlled environment and are of a non-obligatory advisory nature only. As such, they do not constitute an express or implied warranty of any kind including the Warranty of Merchantability and/or Fitness for a Particular Purpose. Because we have no control over the actual quality of workmanship, materials used and worksite conditions, STAUF USA, LLC. will in no event be liable for any incidental and/or consequential damages. herefore, we strongly recommend that prior on-site testing be conducted to refer to and study the suitability of the product for the intended purpose. With the release of this technical information sheet all its prior versions become invalid. For warranty and warranty disclaimer information please see our Limited Lifetime Warranty @ www.staufusa.com

General Features
- seals slabs with any moisture content
- works under any type of flooring
- contains no water
- contains no chlorinated solvents
- contains no solvents
- contains no VOC (calc. per CA Rule 1168)
- high solids content
- ozone friendly
- Freeze/thaw stable
- contains no isocyanates

Installation Features
- low odor
- high spread rate
- excellent penetration of sub floor
- higher temp & RH will shorten drying time
- observe pot life during installation

Long Term Features
- resistant against aging
- improves bonding of STAUF urethane based adhesives
- improves bonding of STAUF polymer adhesives
- moisture barrier up to 18# or 97% RH w/roller
- moisture barrier up to 25# or 100% RH using XBL10
- suitable for radiant heat systems

Technical Values
- Average Critical Radiant Flux: passed
- Indoor Air Quality Control: passed

Viscosity [cps]
- 600

Dry Film Thickness [mil]
- Roll:11 Trowel:22

Bond Strength [psi]
- break in concrete

Compression Strength [psi] EN ISO 604
- 11,000

Flexural strength [psi] EN ISO 178
- 6,000

Tensile Strength [psi] EN ISO 527
- 1,000

Approved Sub Floors
- Concrete Slabs
- Felt backed Sheet Vinyl (well bonded, sanded, asbestos-free)
- Ceramic Tiles
- Stone, Terrazzo
- Radiant Heated Sub Floors
- Wet Concrete Slab up to 25#/24hrs/1,000SF and 100% RH

Approved Trowels and Spread Rate
- Foam Roller: up to 140 SF/gal.
- XBL10 (7/64"x5/64"): up to 70 SF/gal.

Drying Time
- between 12 and 18 hours, completely hardened after 7 days

Temperature Range during Installation
- 50°-90°F

Relative Humidity Range during Installation
- 30% - 80%

Packing Size
- 2-1/2 gal. Metal Combo Pail (A+B)
- 60 per pallet

Density [lbs./gal.]
- 8.9

Color
- clear

Color Hardener
- Yellow

Mixing Ratio
- 2 Parts A + 1 Part B by weight

Pot Life
- approx. 25 min @ 70 °F (21 °C)

pH value of concrete
- resistent up to 14

Storage
- above 14 °F

Shelf Life
- 24 Months in original, unopened container

Transportation
- UN 2735 Polyamines DOT Class 8 Corrosive

Water Vapor Transmission [ASTM E-96]
- 0.012 grams / hour * m²
- 0.06 lbs / 24h * 1000ft²

Permeance [ASTM E-96]
- 0.026 grams / 24h * m² * mmHg
- 0.04 grains / h * ft² * inHg