

Technical Data Sheet (TDS)

PUM-950 Power-Mastic®

Urethane Based Timber Flooring Adhesive

Special features

- ▣ Moisture Cured Urethane Adhesive
- ▣ contains no isocyanates to etch finishes or harm installers
- ▣ moisture barrier up to 10# or 88% RH
- ▣ Has higher shear strength than competitors
- ▣ PATENT PENDING



Product Description

STAUF PUM-950 Power-Mastic provides a tremendous improvement for urethane adhesives. It is a urethane based, high-strength adhesive for professional timber flooring installation. But unlike other Urethane adhesives, it contains no isocyanates, the primary chemical in other urethane adhesives that will etch fine floor finishes and is a suspected carcinogen. Nor does it contain any solvents or other hazardous materials. It is therefore safe for the ozone and environment. And it is certified to meet some of the toughest "green" product requirements in Europe and the world.

Long open time allows for easy installations. Since there is no water or solvent present, it will not cause dimensional changes to timber flooring at installation. And it has twice the shear strength of competitors, so it grabs, holds and keeps timber floors in place. This adhesive is waterproof when fully cured and will not dissolve if it gets wet. However, it will not prevent moisture-related damages to timber flooring.

This adhesive has earned the highest GEV-EMICODE EC 1 ranking by the European Association for Control of Emissions for Flooring. See www.emicode.com for information.

The adhesive spreads easily and has a non-slump formula that will help insure contact and adhesive transfer because the ridges will bridge normal gaps between the flooring and sub floor. It allows fast installation even with complicated patterns due to its strong green grab. There is no flash time required, so installation can commence immediately. Rolling is neither required nor recommended. It offers superior flexibility and is designed to keep the flooring in place, yet allow for normal movement during seasonal changes to the flooring.

Pre-Installation Checklist

A successful installation requires proper preparation of the sub floor. Read and understand all applicable guidelines and technical data sheets before beginning 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

Prior to starting, the sub floor must be checked according to NWFA installation guidelines. It must be solid and sound, flat, permanently dry, clean, free of chaps, indentations and anti-adherents, as well as resistant to pressure and tension. Moisture content of all floors must be measured before installation. All timber floors should have 8-14% moisture content at installation. There should be no more than a 4-5% variance in moisture content between the timber flooring and any timber sub floor. See NWFA guidelines and the timber flooring manufacturer's recommendations for details.

When adhesive is not used as a moisture barrier, moisture content in concrete sub floors must be below 75% RH using an in-situ probe. When used in conjunction with a #12 trowel/blade (up to 1 m²/L) a moisture barrier of up to 88% RH using an in-situ probe may be achieved and is warranted.

Sub Floor Preparation

Depending on type and condition of sub floor, a mechanical treatment (e.g. mechanical brushing, grinding or sanding) may be required. Intensity of such work must be determined at the site by the installer. Dust, paint, residual adhesives or other surface contaminants must be removed by suitable means. Cleaning the surface with an industrial vacuum cleaner is recommended. Cracks and gaps must be filled with concrete crack filler unless they are expansion joints. Level when necessary to 3/16 inches within 10 feet. Heated sub floors must be primed.

Installation Procedure

Spread the adhesive with the appropriate notched trowel. Avoid excessive adhesive thickness by passing the trowel evenly through the adhesive at a 45 degree angle. There is no flash time, so installation should begin immediately. Lay the flooring into the adhesive, correctly position it and press down firmly. Rolling is neither required nor recommended. Be sure to check the boards at regular intervals to make certain good adhesive transfer from floor to flooring is accomplished. Bowed boards or boards over low spots should be weighted down until the adhesive cures.

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.

This adhesive is mold and mildew resistant and waterproof when fully cured and will not dissolve if it gets wet. However, it will not prevent moisture-related damages to timber flooring unless it is used as a moisture barrier within the limitations set forth in the technical data sheet.

In case of accident, injury, spill or exposure, see MSDS sheet for information. Consult technical data sheet at www.staufusa.com for updated information. Do not install solid timber below grade. Do not use on concrete with curing agents or sealers. Do not install wood flooring with a moisture reading above 14%. Do not use adhesive as a leveling material. This adhesive will not prevent moisture-related damages to timber flooring caused by flooding, busted pipes etc., or where moisture conditions are in excess of limitations outlined in the Sub Floor Examination.

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 Adhesive LLC, will in no event be liable for any incidental and/or consequential damages. Therefore, 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

- ❑ LEED qualified
- ❑ contains no isocyanates
- ❑ contains no water
- ❑ high shear strength
- ❑ contains no solvents
- ❑ contains no VOC
- ❑ certified "green"
- ❑ certified "very low emission"
- ❑ nonflammable
- ❑ high solids content
- ❑ ozone friendly
- ❑ Freeze/thaw stable

Installation Features

- ❑ wet lay - no flash time required
- ❑ strong green grab
- ❑ non-slump formula
- ❑ bridges normal sub floor variations
- ❑ very low odour
- ❑ cleans with acetone
- ❑ no rolling required
- ❑ excellent spread rate
- ❑ long open time
- ❑ spreads easily
- ❑ higher temp & RH will shorten drying time
- ❑ No risk of sensitization

Long Term Features

- ❑ resistant against aging
- ❑ remains elastic
- ❑ suitable for radiant heat systems with primer
- ❑ allows normal dimensional changes in timber flooring
- ❑ adhesive is waterproof when cured
- ❑ No health hazards
- ❑ Stronger shear strength reduces cupping
- ❑ moisture barrier up to 10# or 88% RH using XBL12

Approved Timber Flooring

- ❑ Engineered Timber Flooring
- ❑ Strip Flooring (Solid Timber, <6 cm wide)
- ❑ Shorts (Solid Timber, <6 cm wide, <1 m long)
- ❑ Planks (Solid Timber, <18 cm wide)
- ❑ Parquet
- ❑ Solid Timber Flooring must be straight and flat
- ❑ Bamboo Flooring (except Stranded Bamboo)

Approved Sub Floors

- ❑ Concrete Slabs
- ❑ OSB (underlayment grade)
- ❑ plywood (underlayment grade)
- ❑ Vinyl (well bonded, grinded, tested negative for asbestos)
- ❑ ceramic tiles
- ❑ stone, terrazzo
- ❑ cured levelling compounds
- ❑ radiant heated sub floors
- ❑ Wet Concrete Slab up to 10#/24hrs/1,000SF and 88% RH

Approved Primers

- ❑ Primer is normally not required
- ❑ STAUF AQP-200 Eco-Prime

Approved Sealers

- ❑ STAUF ACS-210 True-Seal

Approved Leveling Compounds

- ❑ STAUF ULC-500 Universal Leveling Compound
- ❑ STAUF SLC-540 Self Leveling Compound
- ❑ STAUF QFF-560 Quick Feather Float
- ❑ STAUF RLC-580 Fiber Level

Approved Trowels and Spread Rate

- ❑ Trowel #14 (Solid & Eng. Floors or Sub Floors when both are flat): up to 2.09 m²/L
- ❑ Trowel #5 (Engineered): up to 1.5 m²/L
- ❑ Trowel #4 (Solid): up to 1.2 m²/L
- ❑ Trowel #12: up to 0.86 m²/L. (Must use 1 blade per pair)
- ❑ Trowel #15 (Underlayments): up to 2.5 m²/L

Cure Time until Normal Traffic

- ❑ between 24 and 48 hours

Clean-Up

- ❑ Use acetone while wet
- ❑ Use plastic scraper and terry cloth when dry

Temperature Range during Installation

- ❑ 10-30 °C

Relative Humidity Range during Installation

- ❑ 30% - 80%

Packaging Size

- ❑ 3 gal. (11.56 L) Plastic Pail
- ❑ 48 per pallet

Weight [lbs./gal.]

- ❑ 13.7

colour

- ❑ cream

Shelf Life

- ❑ 12 Months in original, unopened container

Shear Strength

- ❑ 391 psi (2.7 N/mm²)

Water Vapor Permeability

- ❑ 0.16 g / 24h * m² * mmHg
- ❑ 0.16 perms * inches

Open Time	30% R/H	50% R/H	80% R/H
50 F / 10 C	2 1/2 hours	2 hours	1 1/2 hours
70 F / 21 C	1 3/4 hours	1 1/4 hours	1 hour
90 F / 32 C	1 hour	50 mins	45 mins