

PLITEQ® FAS1 (ONE)

URETHANE FLOORING ADHESIVE FOR MOISTURE BARRIER APPLICATIONS



PRODUCT SPECIFICATION

PRODUCT NAME: **Pliteq FAS1 (One)**

DESCRIPTION: **Pliteq FAS1 (One)** is a one-component, 100% solids, polyurethane-based adhesive. It is solvent free, low-odor, compliant to SCAQMD Rule 1168 for VOC content by containing zero VOCs and does not contain any materials listed on California Proposition 65. This specially formulated adhesive has good early strength buildup for immediate grab and quickly builds into an aggressive bond. When used according to directions this adhesive forms a solid membrane below the flooring to protect it from subfloor moisture.

APPLICATION: **Pliteq FAS1 (One)** is ideal for glue-down installations, for **GenieMat®** sound control underlayments, **GenieMat** finished floors including **GenieMat FIT** tiles, a broad variety of vinyl/rubber/linoleum floors, all types of engineered, solid or acrylic impregnated wood flooring and bamboo. Approved substrates and surfaces for **Pliteq FAS1 (One)** include, APA underlayment grade plywood and OSB; cement backer board; cementitious and anhydrite screeds; concrete and radiant heated subfloors that do not exceed 85°F (30°C); gypsum and lightweight concrete (primed with **Pliteq FAS-PS**); terrazzo (properly prepared with all waxes and surface finishes removed).

SUBSTRATE & SURFACE PREPARATION: Follow flooring manufacturer's guidelines. Substrate must be prepared per ASTM F710 standards including, but not limited to the following:

- Concrete must be placed in strict accordance with applicable standards and specifications. Concrete must be fully cured (at least 45 days), without hydrostatic pressure, without pressurized liquid from any source and free of surface alkaline salt crystallization.
- Concrete floors must be dry, clean, smooth and structurally sound. They shall be free of any foreign materials that might prevent adhesive bond, including dust, dirt, solvent, paint, wax, oil, grease, contaminants from sweeping compounds, residual adhesive, adhesive removers, incompatible sealers, fire-retardant chemicals, fungicides, release agents, alkaline salts, excessive carbonation, laitance, mold, mildew and curing, sealing, hardening or parting compounds.
- Fill all surface cracks, grooves, depressions, control joints and non-moving joints with moisture resistant patching and self-leveling compounds, allow to fully cure and correct high spots before applying adhesive.
- The substrate, adhesive and flooring must be acclimated in an enclosed building with the HVAC operational at service temperature, between 60-95°F (15-35°C) and between 30-65% relative humidity, for at least 72 hours prior to, during and permanently after installation.
- When installing over radiant heated subfloors, turn the heat off for 72 hours before, during and after installation. Failure to turn the heat off may result in shortened working time of the adhesive. When turning radiant heat back on, raise it incrementally, not to exceed a change of more than 5 degrees per hour to a maximum of 85°F (29°C).
- Wood underlayments must have a moisture content below 12% using a Tramex or Delmhorst moisture meter.
- When installing thin-gauge wood (solid or engineered), irregular substrates may telegraph through as adhesive pulls wood down during curing stages. Therefore, substrates must be properly leveled (see ASTM F710) to prevent telegraphing.

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SUBSTRATE & SURFACE PREPARATION:

- When used as a concrete moisture vapor barrier, substrate must be porous per ASTM F3191.
- Do not use over slabs with ASR alkali silica reaction.
- Do not use below grade for moisture control because of increased potential for hydrostatic pressure.

INSTALLATION METHOD:

Pliteq FAS1 (One) may only be used as a wet-set adhesive. Follow flooring manufacturer's guidelines for acclimation, layout, design and any special precautions for installation.

1. Spread adhesive using required tools (see trowel selection and coverage chart below which also details bond only and moisture barrier application tools). Moisture protection applications must have 100% adhesive transfer.
2. Install flooring immediately after adhesive is spread, per the instructions below, dependent upon desired application method. (Do not walk, kneel, or work directly on top of flooring without the proper use of knee-boards for at least 60 minutes after flooring is installed).
 - a. **GenieMat®** underlayment, **GenieMat** finished floors and various other finished floors
 - i. Install underlayment or finished floor immediately after adhesive is spread.
 - ii. Working time is approximately 45 minutes under acceptable temperature and humidity conditions.
 - iii. Periodically lift flooring material to verify proper transfer of adhesive.
 - iv. Avoid flopping the material into the adhesive and use a three section hand roller to roll out the sheets onto the adhesive. This will reduce air entrapment under the sheets that could cause blistering later on.
 - b. Acrylic infused plank, bamboo, Hardwood (engineered, parquet, solid)
 - i. Install flooring immediately after adhesive is spread by securing initial row with approved tape to limit movement and hold patterns (tape strap joints as needed).
 - ii. When installing near a solid object or wall, use wedges to allow for expansion (allow 2 hours before removing wedges).
 - iii. Working time is approximately 45 minutes under acceptable temperature and humidity conditions.
 - iv. Periodically lift flooring material to verify proper transfer of adhesive.
3. Immediately roll and cross roll floor with 75-100 lbs (34-45 kg) roller within 2 hours to ensure proper adhesive transfer.
4. Additional precautionary notes:
 - a. For installation instructions on wood over 5" wide or 6' long, please contact your local **Pliteq** engineer.
 - b. When installing unfinished wood, wait 72 hours before sanding.
 - c. Reseal lid when not in use to protect product.
 - d. Do not use with any vinyl or pvc flooring.

TECHNICAL DATA

BASE: Polyurethane

APPEARANCE: Brown

APPLICATION TEMPERATURE: 60-95°F (15-35°C)

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APPLICATION RELATIVE HUMIDITY:	30%-65%
RELATIVE HUMIDITY TEST (ASTM F2170):	No testing required [100%] - For moisture barrier applications with specified notched trowel
SUBSTRATE MVER (ASTM F1869):	No testing required - For moisture barrier applications with specified notched trowel
SUBSTRATE pH (ASTM F3441):	7-11 [ASTM F710] - Adhesive tolerance. Always refer to the flooring manufacturers recommendations for substrate condition requirements
SUBSTRATE POROSITY (ASTM F3191):	Water must absorb into the substrate within 60 +/- 5 seconds. [ASTM F3191]
MOISTURE BARRIER:	Protects flooring against unlimited substrate moisture vapor up to (100% RH) with specified moisture barrier notched trowel & is not impacted by topical liquids
FLASH TIME:	10 minutes (Tiles/Planks)
WORKING TIME:	45 minutes
CURE TIME:	10 hours
LIGHT TRAFFIC:	8 hours
HEAVY TRAFFIC:	24 hours
ROLLING LOADS:	N/A
CLEANING:	While wet: Use denatured alcohol, mineral spirits or an adhesive remover/stripper. Always check compatibility on a piece of scrap flooring.
STORAGE:	50-80°F (10-27°C)
SHELF LIFE:	1 year [Unopened container at 70°F (21°C)]
FREEZE/THAW STABILITY:	Protect from freezing; Stable to 50°F (10°C)
VOC CONTENT:	0 g/L
CERTIFICATION:	LEED [®] Qualified; Compliant to SCAQMD Rule 1168 for VOC content; Does not contain any materials listed on California Proposition 65
PACKAGING:	2 gallon (7.6 L) or 4 gallon (15.1 L)
QUANTITY/PALLET:	60/Pallet (2 gallon [7.6L]) or 36/Pallet (4 gallon [15.1])









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TROWEL SELECTION AND COVERAGE:

This adhesive is capable of withstanding the substrate conditions for RH/MVER/CaCl₂/pH up to its stated specifications above. However, always refer to the flooring manufacturers recommendations for substrate condition requirements as the flooring may be impacted by the existing substrate conditions. Moisture barrier application methods can be used to protect the flooring from elevated substrate conditions for RH/MVER/CaCl₂/pH up to the stated adhesive specifications with the specified moisture barrier notched trowel.

Flooring Type	Tool* (Images not to scale):		Estimated Coverage
BOND ONLY			
GenieMat to Porous Substrate	1/16" x 1/16" x 1/16" (1.6mm x 1.6mm x 1.6mm) Sq. Notch		125-150 ft ² /gal (3.07-3.68 m ² /l)
GenieMat to Non-Porous Substrate	1/16" x 1/32" x 1/32" (1.6mm x 0.8mm x 0.8mm) U Notch		Up to 300 ft ² /gal (Up to 7.36 m ² /l)
Sheet/Rolls to GenieMat			
Tiles/Planks to GenieMat			
Finger Block Parquet Hardwood	1/8" x 1/8" x 1/8" (3.2mm x 3.2mm x 3.2mm) Sq. Notch		70-80 ft ² /gal (1.72-1.96 m ² /l)
Engineered Plank/Bamboo 1/2" (12.7mm) or less and less than 7" (179mm) wide	3/16" x 1/4" x 1/2" (4.8mm x 6.4mm x 12.7mm) V Notch		60-70 ft ² /gal (1.47-1.72 m ² /l)
Engineered Plank/Bamboo thicker than 1/2" (12.7mm) or 7" (129mm) or wider	3/16" x 3/16" x 3/16" (4.8mm x 4.8mm x 4.8mm) Sq. Notch		35-45 ft ² /gal (0.86-1.10 m ² /l)
Solid Wood Plank, Shorts or Plywood	1/4" x 1/4" x 1/4" (6.4mm x 6.4mm x 6.4mm) Sq. Notch		25-30 ft ² /gal (0.61-0.74 m ² /l)
MOISTURE BARRIER			
5/8" (15.9mm) or less Engineered Plank/Bamboo 1/2" (12.7mm)–5/8" (15.9mm) Solid Wood Plank / Shorts	3/16" x 1/4" (4.8mm x 6.4mm) V Notch		35-40 ft ² /gal (0.86-0.98 m ² /l)
3/4" (19.1mm) Solid Wood Plank, Shorts or Plywood	1/4" x 1/4" x 1/4" (6.4mm x 6.4mm x 6.4mm) V Notch		30-35 ft ² /gal (0.74-0.86 m ² /l)

*Trowel dimensions are width X depth X spacing. Coverage is approximate and may vary depending on porosity of substrate and the angle at which the trowel is held. *It is the sole responsibility of the contractor/installer to determine the proper porosity of the subfloor, apply the correct amount of adhesive for the job conditions and ensure that all instructions, procedures and practices are strictly adhered to.



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