

DUCHATEAU

3-in-1 Wood Floor Adhesive

TECHNICAL DATA SHEET (TDS)



PRODUCT DESCRIPTION:

Designed exclusively for DUCHATEAU, Guild and Atelier Series hardwood flooring, DUCHATEAU's 3-in-1 Wood Flooring Adhesive is a unique one-component wood floor polyurethane adhesive. It is specifically formulated to be used as an adhesive or as a moisture vapor membrane to reduce the transmission of water vapor from the subfloor for the applications where moisture could impact the performance of the wood flooring. ***NO PRE-INSTALLATION MOISTURE TESTING REQUIRED FOR ENGINEERED WOOD FLOORING.*** DUCHATEAU's 3-in-1 Wood Flooring Adhesive can bridge cracks up to 1/8" and will provide a powerful adhesive bond. Its environmentally friendly formulation is easy to trowel and suitable for all green building projects.

FEATURES:

- NO PRE-INSTALLATION MOISTURE TESTING REQUIRED FOR ENGINEERED FLOORING
- LOW VOCs
- May contribute to LEED® credits and is California Proposition 65 compliant
- Greater bond strength and superior initial green strength
- Retains exceptional elasticity
- Easy to trowel
- Protects wood flooring against moisture vapor through the subfloor
- Contains no water

TYPICAL APPLICATIONS:

DUCHATEAU's 3-in-1 Wood Flooring Adhesive is ideal for glue-down installations for all types of engineered, solid or acrylic impregnated wood flooring, bamboo and wood flooring, designed to be installed using the glue down installation method, that may require protection from damage due to subfloor moisture transmissions. When used as an adhesive and moisture membrane, DUCHATEAU's 3-in-1 Wood Flooring Adhesive reduces moisture to acceptable limits.

SUBFLOOR PREPARATION:

DUCHATEAU's 3-in-1 Wood Flooring Adhesive can be used over the following subfloors: concrete, Portland cement patch, terrazzo, ceramic tile, APA approved wood panels, radiant heat flooring, and cement backer board. Ensure that the subfloor is structurally sound, smooth, dry, properly cured, clean and free from dust, dirt, grease, oil, plaster, paint, old adhesive, wax, curing agents, sealers, cutback or other asphaltic-based residue and any other contaminants that could interfere with a good adhesive bond. For applications of over ceramic tiles, it is necessary to grind the tile surfaces and clean thoroughly with an industrial vacuum cleaner.

Before starting the installation, carefully check that the subfloor is flat. Eliminate dips and crowns that exceed 3/16" (4.8 mm) in a 10 feet (3 m) radius by patching or sanding/grinding. Do not use DUCHATEAU's 3-in-1 Wood Flooring Adhesive as a leveling agent. Where needed, use only Portland cement based patching and leveling compound. Always follow DUCHATEAU recommendations for subfloor moisture, subfloor levelness, expansion space and acclimation requirements. Repair all cracks in the subfloor greater than 1/8" (3 mm) before applying DUCHATEAU's 3-in-1 Wood Flooring Adhesive. When the "Moisture Control" installation method is not used, moisture tests must be performed on all concrete subfloors regardless of grade level or age. Moisture testing must be performed in accordance to ASTM F-1869 – Calcium Chloride Test, or ASTM F-2170 – in situ RH Probe Test. Always refer to DUCHATEAU's installation instructions for subfloor moisture requirements and testing procedures before beginning your installation.

Concrete Subfloors: Concrete must be cured a minimum of 28 days. Pre-install moisture testing is not required when using the “Moisture Control” installation method. Subfloor must have no pre-existing moisture conditions or failures from conditions of hydrostatic pressure. The subfloor must be dry to the touch with no standing water or visible dampness, and must be prepared to receive flooring in compliance with ASTM F710. Concrete subfloors over a year old with high moisture readings are indicative of a chronic underlying moisture source problem resulting from hydrostatic pressure or other moisture related exclusions such as broken pipes, leaky plumbing, sink overflow, flooding, weather conditions or improper maintenance. Problems caused by these moisture related exclusions will not be covered by the limited warranty.

Terrazzo: All polishes and glaze compounds must be completely stripped and surface must be abraded by sanding. After sanding, thoroughly vacuum (NO sweeping) to remove all loose dust particles. After vacuuming, clean the entire substrate with mineral spirits and allow drying before installing the wood flooring.

Plywood and OSB Type Subfloors: All panels must be APA approved and securely fastened. Eliminate all squeaks and movement with SCREWS (not nails). Sand all high joints. Fill and patch low areas. Refer to wood flooring manufacturer for guidelines of moisture content difference between properly acclimated wood flooring and subflooring materials. (Typically this should not exceed 4%)

Radiant Heated Subfloors:

DUCHATEAU’s 3-in-1 Wood Flooring Adhesive is approved for use on hydronic system radiant heated subfloors, provided the wood flooring is approved over radiant heated subfloors. The system must be fully embedded in concrete. Lightweight or gypsum based topping must be dry and above grade, and the surface must NOT be primed prior to glue down installation. Turn off the heat 48 hours prior to the installation and leave the heat off until 48 hours after the installation is completed.

INSTALLING WOOD FLOORING FOR “MOISTURE CONTROL” APPLICATION

1. Subfloor must be in compliance with “Subfloor Preparation” above before starting the installation.
2. Follow DUCHATEAU’s instructions for acclimation, floor layout and expansion space requirements. It is imperative the subfloor be flat, without dips, birdbaths or sudden rises (3/16” in 10’ radius or 1/8” in 6’ radius).
3. Use the trowel chart to determine which trowel to use. The use of any other applicator or trowel size will void all warranties and yield unsatisfactory results.
4. TROWEL THE ADHESIVE PARALLEL TO THE WOOD FLOORING IN 24”-36” SECTIONS THEN IMMEDIATELY LAY WOOD INTO WET ADHESIVE BEFORE MOVING TO NEXT SECTION. ALWAYS SPREAD ADHESIVE BEYOND WHERE THE LAST ROW OF FLOORING STOPS TO ENSURE THERE ARE NO VOIDS BETWEEN STOPPING AND STARTING POINTS WHEN SPREADING THE ADHESIVE. 100% ADHESIVE TRANSFER IS REQUIRED FOR MOISTURE PROTECTION.
5. Repeat steps 3–4 until the job is complete.
6. It is the sole responsibility of the installer to determine the suitability and compatibility of the adhesive for the user’s intended use.

INSTALLING WOOD FLOORING FOR GLUE DOWN ONLY APPLICATION

Concrete subfloors must be cured a minimum of 28 days. Subfloor must be properly prepared to receive flooring in compliance with ASTM F710. Subfloor moisture levels must not exceed DUCHATEAU’s guidelines. When subfloor moisture levels exceed wood manufacturer’s limit, use the “moisture control” installation method.

1. Read and understand all Technical Data and Safety Data Sheets prior to installation.
2. Follow all requirements provided by DUCHATEAU including those related to wood flooring acclimation, room temperature and humidity levels, environmental controls, expansion space and layout.
3. Follow the instructions for “Subfloor Preparation” above.
4. Follow the instructions for “Trowel Selection” below and select the appropriate notched trowel for the type of wood you are installing. For proper adhesive bond, 90% transfer of adhesive to the flooring is required.
5. Select the correct trowel for the wood you are installing from the trowel chart. Using the incorrect trowel will void this adhesive warranty.
6. Apply DUCHATEAU’s 3-in-1 Wood Flooring Adhesive to the subfloor with recommended trowel and lay the wood floor onto the “wet” adhesive. NOTE: Do not set flooring into adhesive that has a dry skin. The “open time” of the adhesive will vary according to the temperature and humidity level, the higher the temperature and humidity, the shorter the open time.
7. Good transfer of the adhesive to the wood is critical. Periodically pull back a board that has just been installed and make sure there is 90% adhesive transfer to the board.
8. Trowel tips will become worn down over time and must be changed to achieve correct coverage.
9. It is the sole responsibility of the Installer to determine the suitability and compatibility of the adhesive for the user’s intended use.

CLEAN UP:

Using an approved adhesive remover, remove any adhesive smudges from the wood floor surface as well as tools and equipment before the adhesive dries. Carefully use a soft cloth while it is still wet as to not damage the floor. Mineral spirits may be necessary to remove any cured adhesive. Always test an inconspicuous area with mineral spirits to ensure the flooring finish will not be damaged.

TROWEL SELECTION:

The proper notch trowel is very important in achieving satisfactory results with DUCHATEAU's 3-in-1 Wood Flooring Adhesive. Use of an incorrect trowel will void all warranties.

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Wood Floor Type	5/16" Fingerblock Parquet	Engineered Plank or Bamboo 1/2" or less and less than 7" wide	Engineered Plank or Bamboo thicker than 1/2" or 7" or wider	Solid Wood Plank, Shorts or Plywood	Parquet, Engineered Plank, Bamboo or Solid Plank
Subfloor Moisture	Less than 3 lbs/1000 ft ² per 24 hours or 75%RH				Adhesive, Moisture & Sound Control
	1/8" x 1/8" x 1/8" Square Notch 	1/4" x 1/2" x 3/16" V-Notch 	3/16" x 3/16" x 3/16" Square Notch 	1/4" x 1/4" x 1/4" Square Notch 	1/4" x 1/4" V-Notch 
Coverage	55-65 ft ² / U.S. gal	60-70 ft ² / U.S. gal	35-45 ft ² / U.S. gal	25-30 ft ² / U.S. gal	30-35 ft ² / U.S. gal

TECHNICAL DATA

Sound Control (when used with 1/4" by 1/4" V-Notch Trowel):

IIC	ASTM E492-004 with ceiling: 66 dB
IIC	ASTM E-492-004 without ceiling: 50 dB
STC	ASTM E-90-09 with ceiling: 63 dB
STC	ASTM E90-09 without ceiling: 54 dB
Δ IIC	ASTM E 2179: 19 dB

- Elongation: >150%

Maximum Subfloor Moisture:

- Engineered Flooring with "Adhesive and Moisture Control" method: None
- All other flooring or installation methods - 3lbs/ 1000 sq. ft or 75% RH
- Color: White
- Application Temperature: 65°F - 90°F (18°C - 35°C)
- Cure Time: Light foot traffic: after 8-10 hours, Heavy foot traffic: after 24 hours
- Open Time: 70 - 100 minutes at 65°F - 75°F (18°C - 24°C) Open times will vary with temperature and humidity.
- VOC: <30 g/L (calculated per SCAQMD Rule 1168)
- Flash Point: >200°F (>93.3°C)
- Packaging: 4 gallon pail = 55.4 lbs (25.1 kg)
- Shelf Life: One year from date of manufacture, when stored at 50°F - 80°F (10°C - 26°C)