

PRODUCT DATA SHEET

SikaBond®-T21

All-in-one, polyurethane-based, wood flooring adhesive, moisture vapour and sound reduction membrane

PRODUCT DESCRIPTION

SikaBond®-T21 is a one-component, low-VOC, permanently elastic, super strong, very low permeability, moisture-cured, vapour-retarding, crack-bridging polyurethane adhesive and sound reduction membrane, all-in-one, for full surface wood floor bonding.

WHERE TO USE

- SikaBond®-T21 may be used for solid and engineered wood floors (strips, long strips, planks, panels, boards), mosaic parquet, industrial parquet, wood paving (residential) as well as particleboard and plywood.

CHARACTERISTICS / ADVANTAGES

- 270 % Elongation
- Extremely easy to trowel
- Unlimited subfloor moisture vapour protection
- No moisture testing required - a dry to touch substrate is the only requirement
- Single material capable of operating as a wood floor adhesive, vapour retarding membrane and sound reduction layer
- Excellent Green Grab
- Suitable for most common types of wood flooring
- Especially good for problematic woods such as beech and bamboo
- Bonds solid wood flooring up to 19 mm (¾ in) thick and 200 mm (8 in) wide, and engineered planks up to 350 mm (14 in) wide directly to concrete without length limitations
- Low odour
- Suitable for in-floor radiant heat installation

- Permanently elastic – allows planks to expand and contract without damage to the adhesive
- Crack-bridging
- Tenacious bond
- Contains no water
- Eliminates sleepers over concrete

ENVIRONMENTAL INFORMATION

- Contributes towards satisfying LEED® v4 EQ Credit - Low-Emitting Materials
- Contributes towards satisfying LEED®v4 MR Credit - Building Product Disclosure and Optimization - Sourcing of Raw Materials (Option 1: Raw material source and extraction reporting):

APPROVALS / CERTIFICATES

- Independently tested to -STC 62 (ASTM E-90) [168 mm (6 in)] concrete slab, 5/8 in (19 mm) suspended gypsum ceiling)
- Reduction of Impact Sound Δ IIC = 21 (ASTM E-2179)

PRODUCT INFORMATION

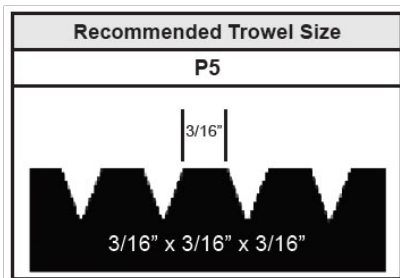
Packaging	15.14 L (4 US gal) pail
Colour	Light brown
Shelf Life	12 months from date of manufacture, in its original, undamaged and sealed container.
Storage Conditions	Store dry at temperatures between 10 °C and 25 °C (50 °F and 77 °F) and protect from direct sunlight.
Density	Water Vapour Permeability < 4 g/m ² -24h-mmHg per ASTM E96 (Standard Test Method for Water Vapor Transmission of Materials) - Specific Gravity 1.18 kg/L (9.85 lb/gal)

TECHNICAL INFORMATION

Shore A Hardness	50	(28 days at 73 °F (23 °C) and 50 % R.H.)
Tensile Strength	1.03 MPa (150 psi)	(28 days at 73 °F (23 °C) and 50 % R.H.)
Elongation at Break	~ 270 % cured	(28 days at 73 °F (23 °C) and 50 % R.H.)
Shear Strength	1.03 MPa (150 psi) using 1 mm adhesive thickness	(28 days at 73 °F (23 °C) and 50 % R.H.)
Service Temperature	-40 °C to 70 °C (-40 °F to 158 °F)	

APPLICATION INFORMATION

Consumption

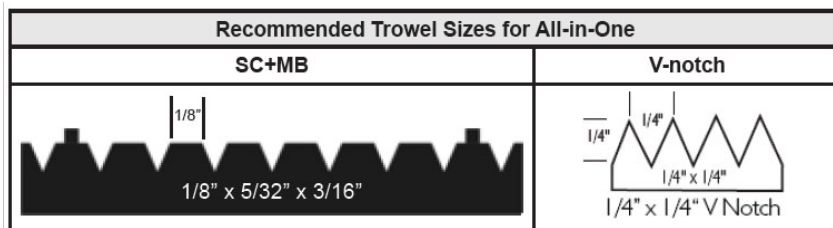


For use as an adhesive only:

For proper coverage, use as a minimum a **P5 trowel**.

P5 Trowel: approx. 1.1 - 1.2 m²/L (45 - 50 ft²/US gal)

SikaBond®-T21 requires, as a minimum, a P5 trowel for application, with larger notch sizes also being acceptable.



For use as an adhesive and membrane:

Use **All-in-One SC+MB trowel** or **1/4" x 1/4" V-notch trowel** (for moisture vapour and sound reduction membrane and bonding)

SC+MB Trowel or 1/4" x 1/4" V-notch: approx. 0.73 - 0.86 m²/L (30 - 35 ft²/US gal) required for vapour and sound retarding membrane.

SikaBond®-T21 requires the use of an SC +MB or 1/4 x 1/4 V notch trowel for application, with larger notch sizes also being acceptable.

P5 trowels should be used at 90° angle to the subfloor to achieve the stated coverages, while a SC+MB trowel or 1/4" x 1/4" V-notch trowel should be used at 45° angle.

Product Data Sheet

SikaBond®-T21

March 2025, Version 01.02

020512010000000008

BUILDING TRUST
CONSTRUIRE LA CONFIANCE



The Applicator is responsible for periodic inspection of the trowel to check for excessive wear. If the trowel is found to be defective, it should be replaced immediately to assure recommended coverage.

In cases of uneven substrates, it may be necessary to use a trowel with larger notches to increase the thickness of the adhesive layer. Avoid hollow sections or bare patches. Excessive amounts of adhesive may cause wood flooring to slide.

Coverage must be monitored to ensure accuracy of application. Improper trowel angle may prevent proper coverage.

Sag Flow	Consistency: Spreads very easily
Substrate Moisture Content	For use as an adhesive only: SikaBond®-T21 is not affected by moisture or vapour transmission. For protection of the wood, follow the wood floor manufacturer's requirements for subfloor moisture. If substrate is not acceptable, use SikaBond®-T21 at recommended coverage rate as All-in-One or Sika® MB. See Product Data Sheet for proper instruction. For use as an adhesive and moisture membrane: Concrete must be visibly dry. Inspect for any wetness at base of drywall or visible signs of moisture on concrete. Concrete and cement-based underlayments must be fully cured and free of any hydrostatic and/ or moisture problems. When properly applied in accordance with Sika® guidelines, SikaBond®-T21 provides unlimited moisture vapour protection.
Curing Rate	4.0 mm/24 h at 23 °C (73 °F) and 50 % R.H. Floor may accept light foot traffic after: <ul style="list-style-type: none">▪ 6 to 8 h at 1.1 - 1.2 m²/L (45 - 50 ft²/US gal) (P5 trowel)▪ 12 h at 0.73 - 0.86 m²/L (30 - 35 ft²/US gal) (SC+MB trowel) (depending on climatic conditions and adhesive layer thickness) Floor can be sanded after 18 hours
Skin Time / Laying Time	~ 45 to 60 minutes at 23 °C (73 °F) and 50 % R.H.

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods. Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

LIMITATIONS

- SikaBond®-T21 must cover 100 % of subfloor in order to operate as moisture vapour and sound reduction membrane.
- Chemically treated woods (ammonia, wood stain, timber preservatives, etc), woods that have been pre-sealed on the back side or woods with high oil content must be tested with SikaBond®-T21 by the applicator and verified as suitable prior to proceeding with works.
- Maximum warranted wood size: solid wood < 200 mm (8 in) wide, engineered wood < 350 mm (14 in) wide.
- Follow the wood floor manufacturer's installation instructions.
- Minimum age of concrete before application is 21 - 28 days, depending on curing and drying conditions.
- On-or below-grade substrates must have appropriate vapour barrier [$\geq 0,25$ mm (10 mil)] properly installed below slab. The barrier must remain intact during construction and be continuous.
- Do not use on PE, PP, TEFLON, and certain plasticized synthetic materials. Some primers can also negatively influence the bond of SikaBond®-T21. Carry out pre-start trials on unusual substrates and where existing primers remain to assess compatibility and adhesion.
- Do not use on wet, contaminated or friable substrates.
- This membrane reduces moisture vapour emissions that originate from below the membrane only. It will not prevent all possible moisture related or install related issues such as improper acclimation of flooring, jobsite temperature and relative humidity, etc.
- This membrane does NOT reduce issues originating from the ends, sides or top of flooring, i.e. puddles, water leaks, etc.
- Cutback or other asphaltic based residue must be removed.
- Subfloor should be level – do not use adhesive as a levelling agent.
- When needed, Sika recommends the use of Sika® Level patching mortars and levelling compounds for best

results.

- Gypsum based subfloors are very susceptible to excess moisture and will be degraded if exposed to excess moisture from below or above.
- Do not use in areas subject to hydrostatic head or in areas subject to secondary source of moisture.
- Do not apply or cure in the presence of uncured silicone sealants, alcohol and other solvent cleaners.
- Do not use over concrete with curing compounds, sealers or other surface treatments that could impact the adhesion.
- Room temperatures should be between 15 °C (59 °F) and 32 °C (89 °F) during installation unless otherwise specified by the wood floor manufacturer.
- Adhesive should be kept above 15 °C (59 °F) for best workability.
- P5 trowels or larger must be used with all solid woods and when applying over gypsum-based sub-floors (for use as an adhesive only)
- SC+MB or 6 mm x 6 mm (1/4 in x 1/4 in) trowels must be used for use as an adhesive, vapour retarder and sound reduction membrane.
- Periodically check coverage of adhesive during installation.
- 100 % substrate coverage, at the stated yield and adhesive transfer is required to protect against damages from subfloor moisture.
- Sufficient ambient moisture is necessary for proper curing.
- When bonding solid wood, Sika recommends the use of straps to fully connect tongue and groove – especially when wood pieces are not perfectly straight – ensure starter rows are set and properly cured to handle tension from straps.
- Installations over in-floor radiant heat require that slab temperature be kept below 20 °C (68 °F) during installation and for 48 hours thereafter; the temperature should then be raised slowly (raise the floor temperature 1 °C (2 °F) every 48 hours until desired temperature is reached). Maximum allowable temperature is 29 °C (84 °F). Follow wood floor manufactures' temperature guidelines.
- SikaBond®-T21 is recommended for use by experienced applicators, especially where the material is being used as an adhesive, vapour retarder and sound reduction membrane.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The subfloor must be structurally sound, clean,

dry, level and free from oils, bituminous materials, curing compounds, grease, dust, loose particles, paint and other poorly adhering material. SikaBond®-T21 can generally be used without priming on properly prepared, structurally sound concrete, cement floors, particleboards, ceramic tiles, plywood and hardwood. Sika recommends the use of Sika® Primer MB^{CA} over any dry, gypsum based subflooring to enhance surface strength. Maximum acceptable floor variation is 5 mm in 3.05 m (3/16 in in 10 ft).

Preparation is a critical step in the installation process and will ensure a successful, long-term, tenacious bond. Concrete substrates must be structurally sound, clean, dry, level, free of voids, projections, loose materials. They must be free of oil, grease, sealers and other surface contaminants or any contaminants or conditions that may affect adhesion or overall product performances. They should be thoroughly cleaned with an industrial vacuum agitating the surface with a brush attachment. For substrates with old, well-bonded adhesive or adhesive residue, use Sika® Primer MB^{CA}. Consult the relevant Product Data Sheet for application instructions and proper details.

For application over ceramic tiles, it is necessary to grind tile surfaces, removing any glaze and producing a matt, fine gripping surface and then clean thoroughly with an industrial vacuum equipped with a brush attachment.

If surface contains asphalt (cutback) adhesive, follow the Resilient Floor Covering Institute's Recommended Work Practices for removal. When the asphalt (cutback) adhesive is sufficiently removed, use the Sika® Primer MB^{CA} to help promote adhesion to the sub-floor or use a Sika® Level primer and levelling compound over the cutback residue. SikaBond®-T21 will adhere to most common patching/levelling compounds. Due to differences in asphalt based adhesive types and performance capabilities, the applicator must verify that preparation of the surface is sufficient prior to using Sika® Primer MB^{CA} or the Sika® Level compound. For unknown substrates, please contact your Sika Canada Technical Sales Representative.

Substrate Temperature: During laying and until SikaBond®-T21 has fully cured, substrate temperature should be greater than 15 °C (59 °F) and in case of in-floor heating systems, less than 20 °C (68 °F). For substrate temperatures, the standard construction rules are relevant.

Air Temperature: Room temperature must be between 15 °C (59 °F) and 35 °C (95 °F). For ambient temperatures, the standard construction rules are relevant.

Substrate Humidity:

For use as an adhesive only: SikaBond®-T21 is not affected by moisture or vapour transmission. For

protection of the wood, follow the wood floor manufacturer's requirements for subfloor moisture. If substrate is not acceptable, use SikaBond®-T21 at recommended coverage rate as an All-in-One system or use Sika® Primer MB^{CA}. See Sika® Primer MB^{CA} Product Data Sheet for proper instruction.

For use as an adhesive and moisture membrane: Concrete must be visibly dry. Inspect for any visible signs of moisture on concrete or wetness at details and junctures, i.e at base of drywall. Concrete and cement-based underlayments must be fully cured and free of any hydrostatic and/or moisture problems.

Relative Air Humidity: Between 40 % and 70 % during installation is best for adhesive. See wood floor manufacturer for wood requirements.

APPLICATION METHOD / TOOLS

Read this Product Data Sheet completely prior to starting installation.

SikaBond®-T21 is applied to the properly prepared substrate directly from the pail and uniformly distributed with a notched trowel. Take care to place only enough adhesive to allow sufficient time to place wood into the adhesive while the adhesive is still very wet. Press the wood floor elements firmly into the adhesive so that the wood floor underside is sufficiently wetted. A general rule is to apply the wood flooring within 20 to 25 minutes of applying the adhesive under normal temperature and humidity conditions. SikaBond®-T21 is a moisture curing adhesive and will cure faster in more humid environments.

Do not let a skin form on the adhesive prior to applying the wood flooring.

The elements can then be joined together using a hammer and an impact block and/or rubber mallet. Many types of wood floors have to be tapped from the top. Leave gaps at room perimeters and at any floor wall partition to allow wood flooring to move naturally. The wood floor manufacturer's laying instructions, as well as standard construction rules, must be observed.

Note: Wood floor manufacturer's requirements for room humidity levels and environmental control, along with wood flooring acclimatization requirements, must be strictly followed.

Sika Canada Inc.

Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca

Other locations

Boisbriand (Quebec)
Brantford; Cambridge;
Sudbury; Toronto (Ontario)
Edmonton (Alberta)
Surrey (British Columbia)

CLEAN UP

All tools should be cleaned immediately after use with Sika® Urethane Cleaner and Thinner. Any adhesive that is permitted to cure on the tools will need to be removed by mechanical means. Use a dry cloth and Sika® Hand Cleaner towels to remove adhesive from pre-finished wood surfaces before it cures. Finger prints or small amounts of adhesive residue can be removed from pre-finished wood using the towels. Sika® Hand Cleaner towels use a citrus based cleanser that will not harm the floor finish. Remove any adhesive residue from hands using the Sika® Hand Cleaner towels.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

SikaBond-T21-en-CA-(03-2025)-1-2.pdf

Product Data Sheet

SikaBond®-T21
March 2025, Version 01.02
020512010000000008

