



PRODUCT DATA SHEET

SikaBond®-T55

LOW VOC, TROWEL-APPLIED POLYURETHANE ADHESIVE FOR WOOD FLOORING

PRODUCT DESCRIPTION

SikaBond®-T55 is a low-VOC, super-strong, one component polyurethane adhesive for full surface woodfloor bonding. Along with its physical characteristics, including permanent elasticity, SikaBond®-T55 has been specifically formulated to be exceptionally easy to trowel, preventing arm strain and increasing productivity.

WHERE TO USE

- Bonding of solid and engineered wood flooring (strips, longstrips, planks, panels, boards) mosaic parquet, industrial parquet, wood paving (residential) as well as chipboards

CHARACTERISTICS / ADVANTAGES

- 400 % Elongation
- Reduces stress on the substrate: the elastic, material-compatible adhesive reduces transverse stress between the wood floor and the substrate
- Extremely easy to spread, helping to accelerate installation and increasing productivity

PRODUCT INFORMATION

Packaging	18.9 L (5 US gal.) pail
Colour	Tan
Shelf Life	12 months from date of manufacture, if stored in undamaged, original, sealed containers.
Storage Conditions	Store dry at temperatures between 10 and 25 °C (50 and 77 °F) and protect from direct sunlight.

- Fast-curing: unfinished wood flooring can be sanded after 12 hours of cure time
- Suitable for most common types of wood floors
- Especially good for problematic woods such as beech and bamboo
- Bonds solid wood flooring up to 19 mm (¾ in.) thick and 203 mm (8 in) wide, and engineered planks up to 355 mm (14 in) wide directly to concrete without length limitations
- Suitable for in-floor radiant heat installation
- Permanently elastic; allows planks to expand and contract without reduction of bond.
- Does not contain water
- Suitable for bonding wood floors directly onto old ceramic tiles eliminating need for removal
- Footfall-sound-dampening adhesive, helping to create a quieter environment
- Eliminate sleepers and plywood over concrete substrates

ENVIRONMENTAL INFORMATION

- VOC Content: 53 g/L - SCAQMD, Rule 1168 compliant (100 g/L limit for *Wood Flooring Adhesive* Category)

Density 1.34 kg/L (11 lb/gal)

TECHNICAL INFORMATION

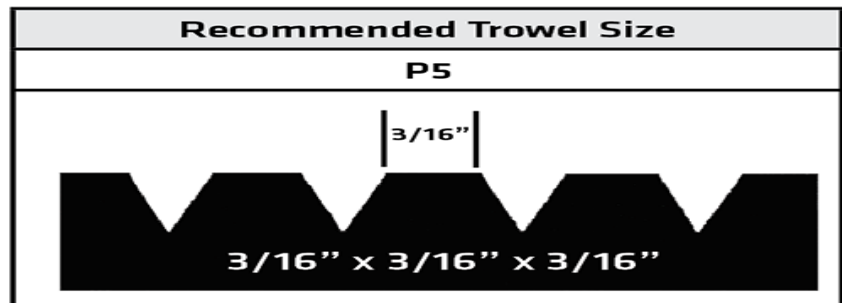
Shore A Hardness	35	(28 days at +23 °C (73 °F) and 50 % R.H.)
Tensile Strength	1.5 MPa (217 psi)	(28 days at +23 °C (73 °F) and 50 % R.H.)
Elongation at Break	~400 %	(28 days at +23 °C (73 °F) and 50 % R.H.)
Shear Strength	~1 MPa (145 psi) using 1 mm adhesive thickness	(28 days at +23 °C (73 °F) and 50 % R.H.)
Service Temperature	-40 °C to +70 °C (-40 °F to 158 °F)	

APPLICATION INFORMATION

Consumption

P5 Trowel: approx. 1.23 m²/L (50 ft²/US gal.)

In cases of bonding of long, wide boards or 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 the wood flooring to slide.



Sag Flow

Consistency: Spreads very easily, holds ridges after troweling.

Substrate Moisture Content

Moisture requirements are set forth to protect the wood flooring products that can expand and contract with different moisture levels. SikaBond®-T55 is not affected by moisture or vapor transmission. The guidelines below are included to provide the best practices in moisture vapor testing that exists today. Permissible substrate moisture contents are listed on the chart below. For more information on the use of the CM method please contact your Sika Canada Technical Sales Representative.

Application	Moisture level requirements using Tramex method (%)	Moisture level requirements using CM method (%)
3/4" solid or engineered over concrete	4 %	2.5 %
3/4" solid or engineered over concrete with Sika® MB layer	6 %	4.0 %
3/4" solid or engineered over in-floor heating over concrete	3 %	1.8 %

The National Wood Flooring Association recommends the use of moisture testing devices that identify actual moisture content in percentages (%). For best results in measuring the moisture levels in cement based subfloor use the Tramex measuring device to find the highest reading in the application area and then run the CM method at that highest point to determine the worst case. As a general guideline for floors with no in-floor heating if the Tramex is below 4 % the Sika® MB will not be necessary and between 4 % and 6 % Sika® MB will be required - however, the CM method must be used to make final determination of concrete moisture levels – use chart above. For moisture content and quality of substrates the guidelines of wood floor manufacturer must be observed.

Curing Rate	4 mm /24 hours. Floor may accept light foot traffic after 4 hours and be sanded 12 hours after installation (depending on installation conditions and adhesive layer thickness).	
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®-T55 is suitable for experienced applicators.
- Maximum wood size: solid wood < 203 mm (< 8 in) wide and engineered wood < 355 mm (< 14 in) wide.
- Room temperatures should be between +15 °C (59 °F) and +32 °C (89 °F) during installation unless otherwise specified limitations by wood flooring manufacturer.
- Do not use on wet, contaminated or friable substrates.
- When needed, Sika Canada recommends the use of Sika® Level patching and levelling compounds for best results.
- Below grade installations are typically more difficult to control moisture and room humidity levels - if this cannot be done sufficiently then below grade applications should use structurally sound engineered hardwood only.
- 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.
- This adhesive will not prevent moisture related damage to wood flooring installations.
- Sub-floor should be level - do not use adhesive as a levelling agent.
- In case of an uneven substrate, it may be necessary to use a notched trowel with larger notches (avoid hollow sections or bare patches). Improper trowel angle may prevent proper coverage. Coverage must be monitored to ensure accuracy of application.
- Cutback or other asphaltic based residue should be removed.
- Chemically treated woods (ammonia, wood stain, timber preservatives, etc.) and woods with high oil content must be tested for adhesive prior to application.
- Adhesive should be kept above +15 °C (59 °F) for best workability.
- Sufficient ambient moisture is necessary for proper curing.
- When bonding solid wood Sika Canada 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 heating require that slab temperature be kept below +20 °C (68 °F) during installation and for 48 hours after installation - then raised slowly up to final desired temperature (Maximum allowed temperature is +29 °C (84 °F). Sika recommends raising floor temperature +1 °C (2 °F) every 48 hours until desired temperature is reached.
- Do not use on PE, PP, TEFLON, and certain plasticized synthetic materials. Some primers can also negatively influence the bond of SikaBond®-T55. Carry out pre-start trials on unusual substrates and where existing primers remain to assess compatibility and adhesion.
- Wood floors in non insulated areas such as basements, or other areas without a damp proof membrane, must only be installed after the application of Sika® Primer MB^{CA} to control the moisture, if within product limitations. For detailed instructions, consult the Sika® Primer MB^{CA} Product Data Sheet or contact your Sika Canada Technical Sales Representative.

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

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

SikaBond®-T55 can generally be used without priming on properly prepared, structurally sound - concrete, cement floors, chipboards, ceramic tiles, plywood and hardwood. For on-grade sub-floors Sika recommends the use of Sika® Primer MB^{CA} for best protection against sub-floor moisture. For best results with the wood flooring products, moisture testing is required by the wood flooring manufacturer. Below grade applications are generally not recommended unless proper precautions are taken to protect the wood flooring from extremes of sub-floor and in-room humidity.

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 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®-T55 will adhere to most common patching/levelling compounds. Due to differences in asphalt based adhesive types and performance capabilities; 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, contact your Sika Canada Technical Sales Representative.

Substrate Temperature: During laying and until SikaBond®-T55 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 +32 °C (90 °F). For ambient temperatures, the standard construction rules are relevant. Follow all wood floor manufacturer's acclimation and room temperature requirements.

Substrate Humidity: Moisture requirements are set forth to protect wood flooring products that can expand and contract with different moisture levels in the room. SikaBond®-T55 is not affected by moisture or vapour transmission. The guidelines below are included to provide the best practices in moisture vapour testing that exists today. Permissible substrate moisture contents are listed below:

Application	Moisture level requirements using Tramex method (%)
19 mm (3/4 in) solid or engineered wood over concrete	4 %
19 mm (3/4 in) solid or engineered wood over concrete with Sika® Primer MB ^{CA} layer	6 %
19 mm (3/4 in) solid or engineered wood over in-floor heating over concrete	3 %

The NWFA (National Wood Flooring Association) recommends the use of moisture testing devices that identify actual moisture content in percentages (%). For best results in measuring the moisture levels in cement based sub-floors, use a Tramex moisture meter to find the highest reading in the application area. As a general guideline for floors with no in-floor heating, if the Tramex reading is below 4 %, the Sika® Primer MB^{CA} will not be necessary; and between 4 % and 6 %, Sika® Primer MB^{CA} will be required. For moisture content and quality of substrates, the wood floor manufacturer's guidelines should be observed.

Relative Air Humidity: Between 40 % and 70 %

APPLICATION METHOD / TOOLS

Read this Product Data Sheet completely prior to starting installation. SikaBond®-T55 is applied to the properly prepared substrate directly from the pail and uniformly distributed by notched trowel. Take care to place only enough adhesive to allow sufficient time to place wood flooring into adhesive while adhesive is still very wet. A general rule is to apply the wood flooring within 20 to 25 minutes of applying the adhesive under normal temperature and humidity conditions. The SikaBond®-T55 is a moisture cured adhesive and will cure faster in more humid environments. - Do not let a skin form on the adhesive prior to applying the wood flooring. Press the wood floor elements firmly into the adhesive so that the wood floor underside is sufficiently wetted. 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. For solid wood installations, Sika Canada recommends the use of clamps to keep joints tight and weights to rest on the wood while the adhesive cures.

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 Sika® Hand Cleaner towels. Sika® Hand Cleaner towels use a citrus based cleanser that will not harm the floor finish.

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.

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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

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Product Data Sheet

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