BUILDING TRUST

PRODUCT DATA SHEET

SikaBond® T-85

HYBRID WOOD FLOORING ADHESIVE, MOISTURE VAPOR AND SOUND REDUCTION MEMBRANE

PRODUCT DESCRIPTION

SikaBond® T-85 is a one component, zero VOC, permanently elastic, super strong, very low permeability, moisture-cure, hybrid adhesive that offers moisture protection, crack bridging and sound reduction for full surface wood floor bonding.

USES

SikaBond® T-85 may be used for solid and engineered wood floors (strips, longstrips, planks, panels, boards), mosaic parquet, industrial parquet, wood paving (residential) as well as chip boards and plywood. Once cured, SikaBond® T-85 will generate a super strong bond to a variety of substrates for glue down installations and at the same time form a membrane which reduces moisture vapor transmission from the subfloor and sound reduction membrane.

CHARACTERISTICS / ADVANTAGES

- ~100% elongation
- Bonds up to 3/4" solid and engineered wood
- Cleans off prefinished floors before and after cure
- Controls MVER up to 12 lbs. / 85% RH
- Zero VOC
- Contains no water, solvent or isocyanates
- Low moisture vapor permeability
- Sound protection
- Crack bridging
- Very easy to spread
- Low odor
- High elongation and permanently elastic

PRODUCT INFORMATION

Chemical Base	Hybrid polymer
Packaging	4 gal. (15.14 L) pail
Color	White
Shelf Life	12 months from the date of production if stored properly
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions and protected from direct sunlight at temperatures between 50°F and 77°F (10°C and 25°C).
Density	~13.69 lbs/gal (~1.64 kg/L)

TECHNICAL INFORMATION

Tensile Strength	~150 psi (~1.03 MPa)	(7 days at 73°F (23°C) and 50% RH)
Elongation at Break	~100%	(7 days at 73°F (23°C) and 50% RH)
Service Temperature	-40°F (-40°C) to 150°F (65°C)	

APPLICATION INFORMATION

Coverage

FOR USE AS ADHESIVE ONLY

Flooring Type		Trowel	Coverage
Solid	Max Thickness: 3/4" Max Width: 5"	1/4" x 1/4" x 1/4" Square notch	30 sq.ft. per gal.
Engineered	Thickness: >1/2" Max Width: Unlimited	1/4" x 1/4" x 1/8" Square notch	35-40 sq.ft. per gal.
Engineered	Thickness: <1/2" Max Width: Unlimited	**P5:** 3/16" x 3/16" x 3/16" Flat V-notch	45-50 sq.ft per gal.
		3/16" x 5/32" V-Notch	50 sq.ft. per gal.

FOR SOUND & MOISTURE CONTROL

Flooring Type		Trowel	Coverage
Solid or Engineered	Solid: Max Thickness: 3/4" Max Width: 5" Eng: Max Thickness: 3/4" Max Width: Unlimited	1/4" x 1/4" V-Notch	30-35 sq.ft. per gal.
		SCMB: 1/8" x 5/32" x 3/16"	30-35 sq.ft. per gal.

For Sound and Moisture Control: 100% adhesive coverage to concrete and 100% adhesive transfer to back of board is required

FOR USE WITH UNDERLAYMENT

Flooring Type	Trowel	Coverage
Cork or rubber underlayment	1/8" x 1/8" Square notch*	80 sq.ft. per gal.

***Recommended trowel size for 3.2mm material**

- These are estimated spread rate coverages and additional adhesive may be required based on substrate porosity/profile/levelness, wastage or any other variations. Apply product to a test area to calculate the exact coverage for the specific substrate conditions. Trowel diagrams are not to scale.
- Coverage must be monitored to ensure accuracy of application. Trowel angle may prevent proper coverage.
- Installer is responsible for periodic inspection of the trowel to check for excessive wear. Worn trowels must be replaced immediately.
- The above-listed trowels must be used to obtain proper coverage, larger sizes are acceptable. Excessive amounts of adhesive may cause floor covering to slide while placing, check coverage during installation.
- P5 trowels should be used at 90° angle, SC+MB trowel or 1/4 in. (6.3 mm) x 1/4 in. (6.3 mm) V-notch at 45° angle to subfloor to get stated coverages.
- The P5 and SC+MB trowel are available from Sika.

Ambient Air Temperature	Room temperature between 60°F (15°C) and 90°F (32°C). For ambient temperatures standard construction guidelines should be followed. Follow all floor covering manufacturers' acclimation and room temperature requirements.
Relative Air Humidity	Between 40% and 70% during installation is best for adhesive. See floor covering manufacturer for floor covering requirements.
Substrate Temperature	During laying and until SikaBond® T-85 has fully cured, substrate temperature should be greater than 60°F (15°C) and in the case of radiant floor heating, less than 68°F (20°C). For substrate temperatures, standard construction guidelines should be followed.
Substrate Moisture Content	**For use as an adhesive only:** SikaBond® T-85 is not affected by moisture or vapor transmission. For protection of the floor covering, follow the floor covering manufacturer's requirements for subfloor moisture. If substrate is not acceptable, use SikaBond® T-85 at recommended coverage rate as Sound & Moisture Control or Sika® MB. See Technical Data Sheet for proper instruction. **For use as an adhesive and sound & moisture membrane:** Concrete moisture vapor emission rate (MVER) may not exceed 12 lbs. per 1,000 sq.ft. (5.44 kg per 92.9 m^2) per 24 hours, anhydrous calcium chloride test (ASTM F1869). Do not install when the relative humidity (RH) of the concrete slab exceeds 85% (ASTM F2170).
Curing Rate	Floor may accept light foot traffic after ~8 hours Floor can be sanded after ~18 hours Curing times depend on environmental and subfloor conditions, adhesive layer thickness and floor covering type.
Skin Time / Laying Time	~45 minutes at 73°F (23°C) and 50% RH

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- SikaBond® T-85 is suitable for interior use only.
- SikaBond® T-85 is only suitable for use by professional floor covering installers.
- Follow the floor covering manufacturer's installation instructions. Floor coverings need to acclimate to the room before installation according to the guidelines of the manufacturer.
- Avoid extreme variations of environmental conditions (temperature or humidity).
- Wood size limitations can be found in coverage section.
- SC+MB or 1/4 in. (6.3 mm) x 1/4 n. (6.3 mm) trowel must be used for use as a moisture membrane. Follow the floor covering manufacturer's installation instructions.
- Minimum age of concrete before application must be 21–28 days, depending on curing and drying conditions.
- Room temperatures should be between 60°F (15°C) and 90°F (32°C) during installation unless otherwise specified limitations by floor covering manufacturer.
- Do NOT use on wet, contaminated or friable substrates.
- When needed, Sika recommends the use of Sika® Level patching 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.
- 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 use over concrete with curing compounds, sealers or other surface treatments that could impact the adhesion.
- This adhesive will NOT prevent excessive moisture related damage to floor covering installations.
- Subfloor should be level – do NOT use adhesive as a levelling agent.
- Cutback or asphaltic based residue must be removed before use of adhesive.
- Adhesive should be kept above 60°F (15°C) for best workability.
- 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.
- During laying, and until SikaBond® T-85 has fully cured, substrate temperature should be greater than 60°F (15°C). For substrate temperatures, the standard construction rules are relevant.
- Installations over radiant heat require that slab temperature be kept below 68°F (20°C) during installation and for 48 hours after installation – then raised slowly up to final desired temperature. Follow floor covering manufacturer's temperature guidelines.
- Wood floors in non-insulated areas or areas without a moisture protection membrane, must only be installed after the application of Sika® MB to control the moisture, if within product limitations. For detailed instructions consult the Product Data Sheets or contact our Technical Service.
- Chemically treated woods (e.g. ammonia, wood stain, timber preservative or woods that have been pre-sealed on the back side) and woods with high oil content must only be used if adhesion tests are run by installer to verify the bond prior to starting application.
- Do NOT use on PE, PP, TEFLON, and certain plasticized synthetic materials (carry out pre-trials).
- Some primers can negatively influence the adhesion of SikaBond® T-85 (pre-trials suggested).
- Do not expose SikaBond® T-85 to alcohol; this will impact the curing of the SikaBond® T-85.
- Protect from freezing. After being frozen the adhesive can no longer be used.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

NOTES ON INSTALLATION

These directions are general guidelines for flooring installations. It is the responsibility of the installer to determine proper drying time of the adhesive, trowel size to be used and acceptability of subfloor conditions. All installations must be in accordance with the flooring manufacturer's recommendations. Only flooring that is approved in writing for glue down installations by the flooring manufacturer can be used with SikaBond® T-85. Floors installed with SikaBond® T-85 are not warranted against damage caused by wet mopping, flooding, plumbing leaks or other extraordinary circumstances. For any installation not herein recommended, contact Sika before proceeding.

SUBSTRATE QUALITY

Substrate must be clean and dry, homogeneous, even, free from oil, grease, dust and loose particles. Paint, laitance and other poorly adhering particles must be removed by mechanical means.
Note: Adhesion tests on project specific substrates are recommended to be performed.

SUBSTRATE PREPARATION

- SikaBond® T-85 can be used on properly prepared, structurally sound concrete, cementitious patch/underlayments, chipboards, ceramic tiles, plywood. All floor covering manufacturer's recommendations must be followed.
- Concrete substrate must have a concrete surface profile of CSP 1-3.
- Thorough examination for excessive moisture in all subfloors is essential. Look around for visible water stains on the drywall and subfloor, particularly on concrete. Checking for and avoiding excessive moisture in every subfloor must be done. Sika requires the use of moisture tests on all concrete and wood subfloors. It is important that the subfloor's moisture content do not exceed the flooring manufacturer's or Sika's recommendations, whichever is lowest. All moisture tests must be documented prior to installation for Sika warranty to be in effect. For on-grade subfloors Sika recommends the use of Sika® MB, Sika® MB Redline or Sika® MB EZ Rapid for best protection against subfloor moisture.
- Below grade applications are generally not recommended unless proper precautions are taken to protect the floor covering from subfloor and in-room humidity extremes.
- A 3,000 psi compressive strength is the minimum requirement needed for SikaBond® wood floor installations, including glue-down wood floors, or glued/mechanically anchored subfloors. Sika products such as Sika® MB, Sika® MB Redline or Sika® MB EZ Rapid can be used on substrates as consolidators to satisfy the minimum psi compressive strength requirements.
- Preparation is a critical step in the installation process and will ensure a successful long term tenacious bond.
- All subfloors must be structurally sound, clean, dry, smooth; free of voids, projections, loose materials, oil, grease, sealers and other surface contaminants. Thoroughly clean with an industrial vacuum. Remove laitance or weak areas mechanically and thoroughly.
- For application over ceramic tiles it is necessary to grind tile surfaces and clean thoroughly with an industrial vacuum.
- When installing floor covering over gypsum based substrates, the gypsum must first be sealed/primed with Sika® MB, Sika® MB Redline or Sika® MB EZ Rapid (see appropriate product data sheet for installation instructions and proper details).
- For substrates with old well bonded non-water soluble

adhesive or adhesive residue use Sika® MB, Sika® MB Redline or Sika® MB EZ Rapid – see appropriate product data sheet for installation instructions and proper details. If surface contains asphalt (cutback) adhesive, follow the Resilient Floor Covering Institute "Recommended Work Practices" for removal. When the asphalt (cutback) adhesive is sufficiently removed use the Sika® MB, Sika® MB Redline or Sika® MB EZ Rapid to help promote adhesion to the subfloor or use a Sika® Level patch/level product in conjunction with the correct primer.

- SikaBond® T-85 will adhere to most common patching / levelling compounds. Due to differences in asphalt-based adhesive types and performance capabilities, installer must verify that preparation of the surface is sufficient prior to using Sika® MB or Sika® Level patch / level compound. For unknown substrates, please contact Sika® Technical Services for best practices at 1-800-933-SIKA.

APPLICATION METHOD / TOOLS

Read and understand data sheet completely before beginning installation. Follow all industry standards, as well as hardwood and bamboo flooring manufacturer's recommendations for floor flatness, acclimation, design, layout, application, etc. of wood flooring material. If jobsite conditions are outside of flooring manufacturer's recommendations, take necessary corrective actions as recommended by the floor manufacturer to address these issues. Whether the moisture content of substrate exceeds or is within the manufacturer's recommendations, to address current or possible future subfloor moisture, apply SikaBond® T-85 as directed. SikaBond® T-85 is applied to the properly prepared substrate directly from the pail and uniformly distributed by trowel as described on this Product Data Sheet. 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 rubber 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 – follow recommended guidelines from wood floor manufacturer. Spacers should be used to ensure perimeter space is maintained. The wood flooring manufacturer's laying instructions, acclimation requirements, room humidity/environmental control requirements as well as standard construction rules must be observed.

Plywood over concrete

Use a minimum 3/4" (19 mm) subfloor panel cut to smaller 2' x 8' or 4' x 4' sections. Kerf the back of the panels 1/2 the thickness of the material (3/8") on a 12" x 12" grid. Lay sections in a staggered joint pattern in the adhesive, with 1/8" spacing between sheets, and 3/4" minimum expansion space at walls and all vertical obstructions. Flatness tolerances should be to within 3/16" in 6' or 1/4" in 10' for nail down over the wood subfloor. Do not use flooring fasteners longer than 3/4" to be certain not to puncture the moisture control membrane. Using a Sika P5 trowel, apply adhesive/membrane to substrate and then set plywood into the wet adhesive/membrane. For adhesion only, ensure at least 90% coverage and transfer. For moisture control, ensure 100% coverage and transfer. Allow the adhesive/membrane to fully cure before nailing or using the SikaBond® adhesive/membrane to install flooring. Make sure that nails do not penetrate through the adhesive membrane.

Crack preparation

All moving joints and moving cracks must be honored up through the floor preparation and floor covering installation, finishing with an appropriate Sika flexible sealing compound. Dormant hairline cracks can be covered with Sika® MB, Sika® MB Redline or Sika® MB EZ Rapid. Dormant joints and dormant cracks greater than a hairline that will not be honored must be pre-filled in strict accordance with the installation instructions provided by the Sika Technical Service Department.

CLEANING OF TOOLS

SikaBond® T-85 cleans easily off of most finishes on pre-finished flooring, even after cure. It is still easier to clean as you go while the adhesive is still wet. Clean with a soft non-abrasive towel as you work. After cure remove adhesive with a non-abrasive towel. Tools that will not damage the floor finish may also work. Clean all tools and equipment immediately after use before adhesive cures. Mineral spirits or other similar solvent can be used.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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