

Sika[®] AcouBond[®]-System

Sound dampening, timber flooring adhesive system

System Description The Sika AcouBond-System consists of the elastic, sound dampening, one-component polyurethane adhesive SikaBond-T53 and the SikaLayer-05 foam mat.

Uses The Sika AcouBond-System is used to bond 3-ply engineered wood and chipboards (tongue and groove) in new construction and in the renovation of residential, office, and industrial buildings. The system provides a sound dampening effect, improving the acoustic insulation of a room.

- Advantages**
- Footfall sound reduction of up to 18dB (DIN 52 210).
 - Reduces walking sound.
 - Can be walked on during installation.
 - Quick and easy to lay.
 - Low adhesive consumption.
 - Suitable for common types of wood floors.
 - Suitable for bonding wood floors directly onto old tiles.
 - Reduces stress on the substrate.
 - Compensation of small substrate unevenness.

Tests

- Approvals/Standards** *Sika AcouBond-System with SikaLayer-05:*
- Sound Transmission Class 60: RALTM-TL01-221 (USA)
 - Impact Insulation Class 57 : RALTM-IN01-11 (USA)
 - Reduction of Impact Sound ΔL_w 18 dB (NF EN ISO 717/2): Report 01A829e
 - Reduction of Impact Noise DL_w -3 dB (NF EN ISO 717/2): Report 01A828e

Product

Description

SikaLayer-05

Uses High quality polyethylene foam mat with symmetrically placed cut-outs. The adhesive is applied in the cut-outs ensuring a direct bond between the timber flooring and the substrate. Achieves a high sound dampening effect.

- Advantages**
- Dimensionally stable and pressure resistant.
 - Defined amount of adhesive consumption.
 - Low weight for transport.

Form

Colour: Grey

Packaging: 13.3 m x 1.5 m rolls = 20 m² (7 rolls per pallet)

Storage & Shelf Life: Unlimited if in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

Technical Data

Chemical base: PE foam
Density: 30 kg/m³ = 150 g/m²
Thickness: 5 mm
Cut-Outs: 60 /m²
Heat conductivity: 0.042 W/mK
Footfall Sound Reduction: Up to 18 dB



Product Description	SikaBond-T53
Uses	Apply SikaBond-T53 to all cut-outs in the SikaLayer-05 mat to achieve a direct bond between the wood flooring and the substrate.
Advantages	<ul style="list-style-type: none"> • One-component , ready to use • Fast curing • Can be sanded
Form Colour:	Beige
Packaging:	600 ml sausages (20 sausages per box)
Storage & Shelf Life:	Twelve (12) months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.
Technical Data	
Chemical basis:	One-component, moisture-curing polyurethane
Density:	~1.2 kg/litre (DIN 53 479)
Skinning/laying time:	~ 45-60 minutes (+23°C / 50% r.h.)
Curing rate:	~3.0 mm / 24 hours (+23°C / 50% r.h.) Floor may be walked on/ground 24-48 hours after installation (depending on climatic conditions and adhesive layer thickness).
Sag flow:	Easily applied with manual or air gun.
Service Temperature:	-40°C to +70°C, suitable for subfloor heating
Mechanical Properties	
Shear Strength:	~1.2 N/mm ² for 1 mm adhesive thickness (at +23°C & 50% R.H.) (DIN 281)
Tensile Strength:	~1.2 N/mm ² , (at +23°C & 50% R.H.) (DIN 53 504)
Shore A hardness:	~ 40 after 28 days (at +23°C & 50% R.H.) (DIN 53 505)
Elongation at break:	~500% (at +23°C & 50% R.H.) (DIN 53 504)
System Information	
System Structure	<i>The system configuration as described must be fully complied with and may not be changed.</i>
Application Details	
Consumption	SikaBond-T53 500-600 g/m ² (400-500 ml/m ²) <ul style="list-style-type: none"> • All cut-outs must be filled. • Apply adhesive in an 8mm wide x 10mm high triangular bead. • For substrates prepared with Sika Primer MB, the consumption of SikaBond is lower.
Substrate Quality	Clean and dry, homogeneous, even, free from grease, dust and loose particles. Paint, laitance and other poorly adhering particles must be removed. Standard construction rules must be observed.
Substrate Preparation	<i>Concrete / cement screed:</i> <ul style="list-style-type: none"> • Must be ground and thoroughly cleaned with industrial vacuum cleaner. <i>Glazed ceramic and old ceramic tiles:</i> <ul style="list-style-type: none"> • Degrease, clean with Sika Cleaner 205 or grind the tile surface and clean thoroughly with an industrial vacuum cleaner. <i>Wood/gypsum sheets (e.g. chipboards, plywood):</i> <ul style="list-style-type: none"> • The sheets have to be fixed to the substrate by gluing/screwing. <i>Other substrates:</i> <ul style="list-style-type: none"> • Please contact our Technical Department. SikaBond-T53 can be used without priming on concrete, chipboards and ceramic tiles. For cement floors with an excessive moisture content, substrates with residues of previous adhesives and on structurally weak substrates use Sika Primer MB. For detailed instructions consult the Sika Primer MB Product Data Sheet or contact our Technical Department.

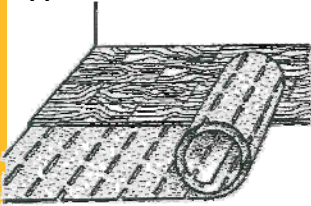


Application Conditions / Limitations

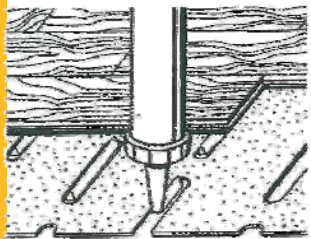
Substrate Temperature	During laying and until SikaBond-T53 has fully cured substrate temperature must be $>+15^{\circ}\text{C}$ and in case of floor heating $<20^{\circ}\text{C}$
Air Temperature	Room temperature between $+15^{\circ}\text{C}$ and $+35^{\circ}\text{C}$.
Substrate Humidity	Permissible substrate moisture content: <ul style="list-style-type: none">• 2.5% CM for cement screed (ca. 4% Tramex / Gravimetric weight percent)• 0.5% CM for anhydrite screed• 3-12% CM for magnesia flooring (proportion of organic parts) Permissible substrate moisture content in case of floor heating: <ul style="list-style-type: none">• 1.8% CM for cement screed (ca. 3% Tramex / Gravimetric weight percent)• 0.3% CM for anhydrite screed• 3-12% CM for magnesia flooring (proportion of organic parts) For moisture content and quality of substrates the guidelines of wood floor manufacturer as well as standard construction rules must be observed.
Relative Air Humidity	Between 40% and 70%.

Application Instructions

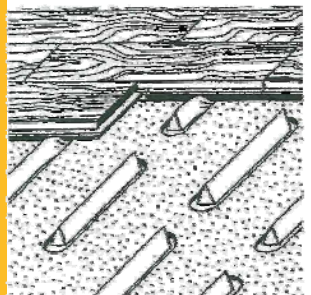
Application Method / Tools



1. Place SikaLayer-05 mat on the properly prepared substrate, parallel to the laying direction of the wood floor.
Please observe that the foam mats must be placed close to each other, however not overlapping.
To apply the adhesive a sausage gun is required.



2. Apply the adhesive with manual or air-pressure gun into all cut-outs using the supplied triangular nozzle (width 8mm, height 10mm). All cut-outs must be filled.
The nozzle must be held vertical to the substrate.
Adhesive may not be placed onto the mat between the cut-outs.



3. Position wood boards and firmly press the boards into the adhesive until they lay tight on the SikaLayer-05 mat. The wood boards can then be joined together using a hammer and an impact block.
The distance from the wall to the wood floor specified in the laying instructions from the wood floor manufacturer must be observed.

Fresh, uncured adhesive remaining on the wood floor surface must be removed immediately with a clean cloth and if necessary cleaned with Sika Remover 208. Test wood floor surfaces for compatibility with Sika Remover 208 before use. The laying instructions of the wood floor manufacturer as well as standard construction rules must be observed.

Cleaning of Tools

- Clean all tools and application equipment with Sika Remover-208 immediately after use.
- Hardened/cured material can only be removed mechanically.

Pot life (max. open time) SikaBond-T53: ~45 minutes

Notes on Application / Limitations

- The substrate temperature and air temperature limitations detailed above may be varied in accordance with the written recommendations of the supplier of the timber flooring, however SikaBond-T53 shall only be used at temperatures between $+5^{\circ}\text{C}$ and $+35^{\circ}\text{C}$.
- For better workability the adhesive temperature should be at least $+15^{\circ}\text{C}$.
- For the proper curing of the adhesive sufficient ambient moisture is necessary.



- For the Sika AcouBond-System accurate tongue and groove (min. 3mm x 3mm) are required:
 - Minimum wood size: Length >300mm (over 3 adhesive cordons)
Width >50 mm
Thickness >12mm
 - Maximum wood size: Thickness <28mm
- The application becomes more effective with long and wide boards (longstrips).
- Wood floor installation in areas without a damp proof membrane can only be undertaken with moisture regulator Sikafloor-EpoCem and Sika Primer MB as a vapour barrier. For detailed instructions consult the Product Data Sheets or contact our Technical Service Department.
- In case of chemically pre-treated types of wood floors (e.g. ammonia, wood stain, timber preservative) and woods with high oil content SikaBond is only to be used after a written recommendation from our Technical Department.
- Do not use on PE, PP, TEFLON, and certain plasticized synthetic materials (carry out pre-trials or contact our Technical Department).
- Do not mix or expose SikaBond to isocyanate reactive substances (such as alcohol and thinner).

Notes All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Local Restrictions Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

Health & Safety Information

- Protective Measures**
- To avoid rare allergic reactions, we recommend the use of protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work.
 - Local regulations as well as health and safety advice on packaging labels must be observed.
 - For further information refer to the Sika Material Safety Data Sheet which is available on request.

- Important Notes**
- Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.
 - Detailed health and safety advice as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.



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