

System Product Data Sheet

Edition 30/08/2006

Identification no:

02 05 02 03 004 System

Sika® AcouBond®-System

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Footfall sound dampening system for wood flooring

System Description

The Sika® AcouBond®-System consists of a mat in two different thickness, SikaLayer®-03 (3 mm)/ SikaLayer®-05 (5 mm) and an elastic, sound dampening adhesive in three different versions: SikaBond®-T52, SikaBond®-T52 FC, SikaBond®-T53.

Uses

- The Sika® AcouBond®-System is used to bond solid wood boards, 3-ply engineered wood as well as chipboards (groove and tongue) in new constructions and especially for renovations in residential-, office-, and industrial buildings as well as sales- and show-rooms.



Characteristics / Advantages

- Footfall sound reduction up to 18 dB (DIN 52 210)
- Reduce walking sound
- Woodfloor bonded directly to subfloor
- No outwearing of mat
- Can be walked on during installation.
- Quick and easy to lay (designated system).
- 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.
- Adhesive can be sanded.

Tests

Approvals / Standards

Sika® AcouBond®-System with SikaLayer-03:

Sound Transmission Class 60: RAL™-TL01-222 (USA).

Impact Insulation Class 59: RAL™-IN01-12 (USA).

Reduction of Impact Sound ΔL_w 16 dB (NF EN ISO 717/2): Report 00A730e.

Reduction of Impact Noise DL_w -3 dB (NF EN ISO 717/2): Report 00A731e.

Sika® AcouBond®-System with SikaLayer-05:

Sound Transmission Class 60: RAL™-TL01-221 (USA).

Impact Insulation Class 57: RAL™-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®-Mats****Uses**

- High-quality Polyethylene foam mat with symmetrically placed cut-outs to insert adhesive to achieve a high sound dampening effect.

Characteristics / Advantages

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

Form**SikaLayer®-03****SikaLayer®-05****Colours**

Grey

Grey

Packaging16.7 x 1.5 m rolls = 25 m²13.3 x 1.5 m rolls = 20 m²**Storage****Storage Conditions / Shelf-Life**

Unlimited if in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

Technical Data**SikaLayer®-03****SikaLayer®-05****Chemical Base**

PE foam

PE foam

Thickness

3 mm

5 mm

Density30 kg/m³ = 90 g/m²30 kg/m³ = 150 g/m²**Cut Outs**60 /m²60 /m²**Heat Conductivity**

0.042 W/mK

0.042 W/mK

Footfall Sound Reduction

Up to 16 dB

Up to 18 dB

Product Description

SikaBond®-Adhesives

Uses ■ Insert SikaBond®-T52 FC, SikaBond®-T53 or SikaBond®-T52 to all cut-outs in the SikaLayer® mat for a predetermined fixation of wood floors.

Characteristics / Advantages

- 1-part, ready to use
- SikaBond®-T52 FC: solvent free, EC-1, odourless, fast curing
- SikaBond®-T52: solvent free, EC-1, odourless
- SikaBond®-T53: Fast curing
- Adhesives can be sanded
- For more detailed information see corresponding PDS

Form

SikaBond®-T52 FC



SikaBond®-T53

SikaBond®-T52



Colours

Parquet brown

Beige

Parquet brown

Packaging

600 ml sausages
1800 ml sausages

600 ml sausages
1800 ml sausages

600 ml sausages

Storage

SikaBond®-T52 FC



SikaBond®-T53

SikaBond®-T52



Storage Conditions / Shelf-Life

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:

12 months

12 months

12 months

Technical Data

SikaBond®-T52 FC



SikaBond®-T53

SikaBond®-T52



Chemical Base

1-part Polyurethane, moisture curing

Density

~ 1.28 kg/l (DIN 53 479)

~ 1.2 kg/l (DIN 53 479)

~ 1.29 kg/l (DIN 53 479)

Skinning- / Laying Time

~ 60 minutes
(+23°C / 50% r. h.)

~ 45-60 minutes
(+23°C / 50% r. h.)

~ 60-90 minutes
(+23°C / 50% r. h.)

Curing Rate

~ 4 mm / 24 h
(+23°C / 50% r. h.)

~ 3 mm / 24 h
(+23°C / 50% r. h.)

~ 3 mm / 24 h
(+23°C / 50% r. h.)

Floor may be walked on / ground 12-48 hours after installation (depending on climatic conditions and adhesive layer thickness). For detailed information see corresponding PDS.

Sag Flow

Consistency:
Easily applicable with gun.

Service Temperature

-40°C to +70°C, suitable for sub floor heating

Mechanical / Physical Properties

SikaBond®-T52 FC



SikaBond®-T53

SikaBond®-T52



Shear Strength

~ 0.9 N/mm²,
1 mm adhesive thickness
(+23°C / 50% r. h.)
(DIN 281)

~ 1.2 N/mm²,
1 mm adhesive thickness
(+23°C / 50% r. h.)
(DIN 281)

~ 0.7 N/mm²,
1 mm adhesive thickness
(+23°C / 50% r. h.)
(DIN 281)

Tensile Strength

~ 1.0 N/mm²
(+23°C / 50% r. h.)
(DIN 53 504)

~ 1.8 N/mm²
(+23°C / 50% r. h.)
(DIN 53 504)

~ 1.3 N/mm²
(+23°C / 50% r. h.)
(DIN 53 504)

Shore A Hardness

~ 30 after 28 days
(+23°C / 50% r. h.)
(DIN 53 505)

~ 40 after 28 days
(+23°C / 50% r. h.)
(DIN 53 505)

~ 30 after 28 days
(+23°C / 50% r. h.)
(DIN 53 505)

Elongation at Break

~ 600% after 28 days
(+23°C / 50% r. h.)
(DIN 53 504)



~ 500% after 28 days
(+23°C / 50% r. h.)
(DIN 53 504)

~ 900% after 28 days
(+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>
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Application Details

	SikaBond® -T52 FC 	SikaBond® -T53	SikaBond® -T52 
Consumption	610 (03) - 770 (05) g/m ² (480 - 600 ml/m ²)	580 (03) - 720 (05) g/m ² (480 - 600 ml/m ²)	610 (03) - 770 (05) g/m ² (480 - 600 ml/m ²)
	<p>Filling of all cut-outs is a must.</p> <p>Use triangular nozzle with 8 x 10 mm opening.</p> <p>1 box with 20 sausages has to be used for one roll of SikaLayer®-Mats.</p>		
Substrate Quality	<p>Clean and dry, homogeneous, even, free from grease, dust and loose particles. Paint, laitance and other poorly adhering particles must be removed.</p> <p>Standard construction rules must be observed.</p>		
Substrate Preparation	<p>Concrete / cement screed: Must be ground and thoroughly cleaned with industrial vacuum cleaner.</p> <p>Anhydrite screed / Anhydrite flowable screed: Must be ground and thoroughly cleaned with industrial vacuum cleaner shortly before bonding starts.</p> <p>Broadcast mastic asphalt: Must be primed with Sika® Primer MB. Instructions for use, see Product Data Sheet for Sika® Primer MB.</p> <p>Glazed ceramic and old ceramic tiles: Degrease, clean with SikaCleaner® or grind the tile-surface and clean thoroughly with an industrial vacuum cleaner.</p> <p>Wood- / gypsum boards (e.g. chipboards, plywood): Glue / screw the boards to the substructure. They have to be fixed on the substrate. In case of floating subfloors, please contact our Technical Service.</p> <p>Unknown substrates: Please contact our Technical Service.</p> <p>SikaBond® -T52 FC / -T53 / -T52 can be used without priming on cement floors, anhydrite floors, chip boards, concrete and ceramic tiles.</p> <p>For broadcast mastic asphalt, cement floors with an excessive moisture content, in case of renovation on old adhesive residues and on structurally weak substrates use Sika® Primer MB. For detailed instructions consult the Product Data Sheet of Sika® Primer MB or contact our Technical Department.</p>		

Application Conditions / Limitations

Substrate Temperature	<p>During laying and until SikaBond®-adhesives have fully cured substrate temperature must be > +15°C and in case of floor heating < +20°C.</p> <p>For Substrate temperatures the standard construction rules are relevant.</p>
Ambient Temperature	<p>Room temperature between +15°C and +35°C.</p> <p>For ambient temperatures the standard construction rules are relevant.</p>

Substrate Moisture Content

Permissible substrate moisture content:

- 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:

- 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

Place SikaLayer®-03 / -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.

Apply the adhesive with manual- or air-pressure-gun into all cut-outs with the supplied triangular nozzle (width 8 mm, height 10mm). Filling of all cut-outs is a must.

The nozzle must be held vertical to the substrate.

Adhesive may not be placed onto the mat between the cut-outs.

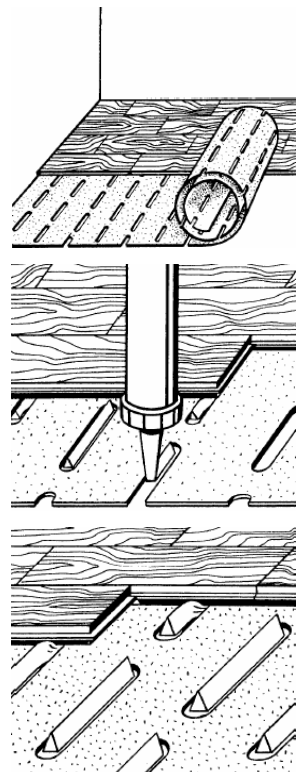
Position wood boards and firmly press into the adhesive until they lay tight on the SikaLayer®. The wood boards can then be joined together using a hammer and an impact block.

The required distance from the wall to the wood floor in the laying instruction 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 or Thinner C.

Test wood floor surfaces for compatibility with Sika® Cleaner-208 / Thinner C 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 / Thinner C immediately after use. Hardened/cured material can only be mechanically removed.

Notes on Application / Limitations

If, according to wood floor suppliers or producers deviation from the standards is permissible, temperatures between +5°C and +35°C must be observed for the adhesive.

For better workability the adhesive temperature must be at least +15°C.
For the proper curing of the adhesive sufficient ambient moisture is necessary.

For the Sika® AcouBond®-System accurate tongue and groove (min. 3 x 3 mm) are inevitable:

Minimum wood size: length > 300 mm (over 3 adhesive cordons)
 width > 50 mm
 thickness > 12 mm

Maximum wood size: thickness < 28 mm

The application becomes more effective with long and wide boards (longstrips).

Wood floor installation in uninsulated areas, basements and grounds without basement only with moisture regulator System Sikafloor® EpoCem and Sika® Primer MB. For detailed instructions consult the Product Data Sheets or contact our Technical Service.

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 plastic synthetic materials (carry out pre-trials or contact our Technical Service).

Do not mix or expose SikaBond® to isocyanate reactive substances (e.g. these are usually parts of alcohol and thinner).

Some primers can negatively influence the adhesion of SikaBond® (pre trials recommended).

When laying bonded wood flooring, always make sure that any wood surface sealer coatings do not come into contact with the adhesive. However if direct contact with the adhesive is unavoidable, then the compatibility of the sealing coats must always be checked and confirmed before use. For further information or assistance contact your local Sika Technical Department.

Value Base

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 and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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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