EN

insulFib 3+

Against impact noise

Acoustic underlay for screed

The thin, affordable and efficient solution

ΔLw 22 dB

CSTB TEST (AC19-26080209)

a unique process

NEW

Two-component acoustic felt

Low dynamic stiffness

s'$_t$ = 13 MN/m³

Thickness 3,5 mm

SC1 a$_4$A classification

insulco insulation products

THIN SOUNDPROOFING UNDERLAYERS

QB SC1 a$_4$ A

12-a01

https://evaluation.cstb.fr

insulFib 3+

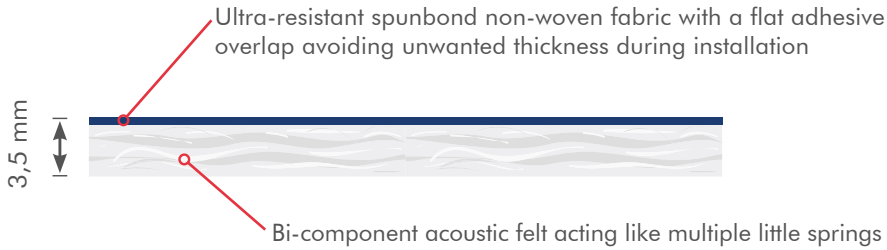
The efficient, thin and ultra-resistant solution

insulFib 3+ is a thin acoustic underlay which aims to reduce the impact sound transmission between the different floors of a building. It has to be placed under a floating sand and cement screed. Alternatively, it can also be placed under a liquid screed.

Recent tests carried out by the CSTB in accordance with NF EN ISO 717-2 certify the outstanding performances of insulFib 3+.

insulFib 3+ is a bi-component acoustic felt coated with a highly resistant spunbond non-woven fabric with a thin adhesive overlap of ± 6 cm width. This product has an extremely low dynamic stiffness since its resonance frequency is only at < 50 Hz. This grants the product a remarkably good impact and high airborne sound insulation.

Exclusive structure



Specifications

Thickness	3,5 mm
Colour	Blue (spunbond non-woven) White (felt)
Material	Spunbond non-woven fabric, Bi-component acoustic felt
Roll	50 m x 1 m + blue adhesive overlap (6 cm)
Weight	310 g/m² (± 10 g/m²)
Insulation against impact noise	ΔL_w = 22 dB CSTB 2019 AC19-26080209
Insulation against airborne noise	$\Delta R_{w,\ heavy}$ = 8 dB CSTB 2019 AC19-26080209
Dynamic stiffness	s'_t = 13 MN/m³ (under 4 kg)
Thermal resistance	R = 0,10 m²K/W
Tear resistance (nail)	180 N
Punching resistance	0,1 mm
Classification	SC1 a_4 A (QB 12-a01)
Volatil Organic Compounds (VOC)	Compliant with : A+ (FR); AFSSET ; BREEAM 2016 ; AgBB 2018 ; Belgian regulation ; EMICODE.

Classification certified and defined according to the NF DTU 52.10 standard :

THIN SOUNDPROOFING UNDERLAYERS

QB SC1 a_4 A

12-a01

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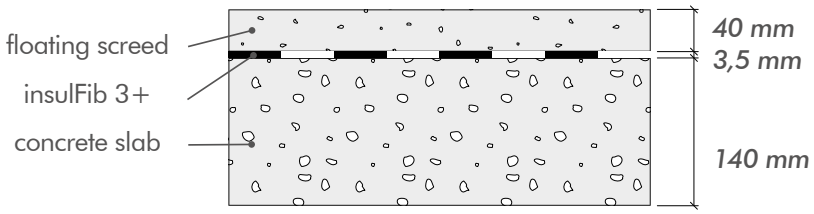
Compressive creep :

The thin insulFib 3+ underlay has been designed for durability. We chose materials that do not deform under the load of floating screed. We have over 30 creep test benches with different loads.

Guaranteed results

Acoustic performances – CSTB test reports (2019 AC19-26080209)

The insulFib 3+ acoustic underlay is a durable and efficient solution against impact noise and also to provide a good solution to airborne noise.



Insulation against impact noise

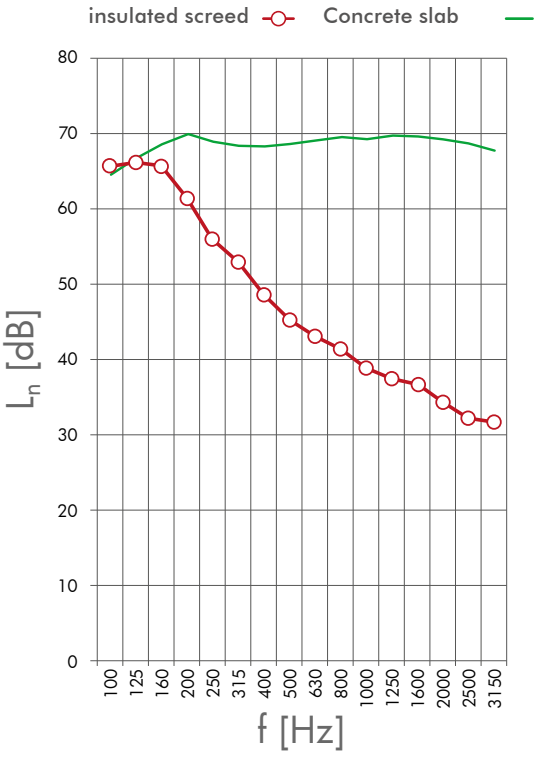
Weighted reduction of the impact sound level : $\Delta L_w = 22$ dB
Improvement of the impact sound insulation : $\Delta L = 24$ dB(A)

insulFib 3+ offers acoustic insulation against the important frequency ranges perceived by the human ear :

12,6 dB at 250 Hz	30,1 dB at 1000 Hz
23,2 dB at 500 Hz	36,4 dB at 2500 Hz

Impact noise insulation values

frequencies	$L_{n,0}$ concrete slab (non-insulated)	L_n insulation material under floating screed	ΔL insulation against impact noises ($L_{n,0} - L_n$)
[Hz]	[dB]	[dB]	[dB]
100	64,6	65,8	-1,2
125	66,6	66,5	0,1
160	68,6	65,8	2,8
200	70,0	61,6	8,4
250	68,9	56,3	12,6
315	68,4	53,1	15,3
400	68,3	48,7	19,6
500	68,6	45,4	23,2
630	69,1	43,2	25,9
800	69,5	41,6	27,9
1000	69,2	39,1	30,1
1250	69,7	37,5	32,2
1600	69,6	36,8	32,8
2000	69,2	34,4	34,8
2500	68,7	32,3	36,4
3150	67,8	31,9	35,9
4000	65,7	32,5	33,2
5000	63,2	26,9	36,3



Insulation against airborne noise

Improvement of the airborne sound insulation : $\Delta R_{w,\ heavy} = 8$ dB

insulFib 3+ has a very low resonance frequency which grants the underlay an outstanding insulation against airborne noise :

11,2 dB at 500 Hz	12,4 dB at 1600 Hz
12,9 dB at 1000 Hz	11,6 dB at 2500 Hz

insulFib 3+

Installation

1 Preparation

Brush the surface and remove every remnant of waste from where the underlay will be installed in order to obtain an even and smoothed-out surface. The surface shall correspond to the following flatness criterias: ≥7 mm under a 2 m plank and it has to be ≤ 2 mm under a 20 cm plank. In certain cases, a levellling screed must be applied over the ducts to obtain an even surface.

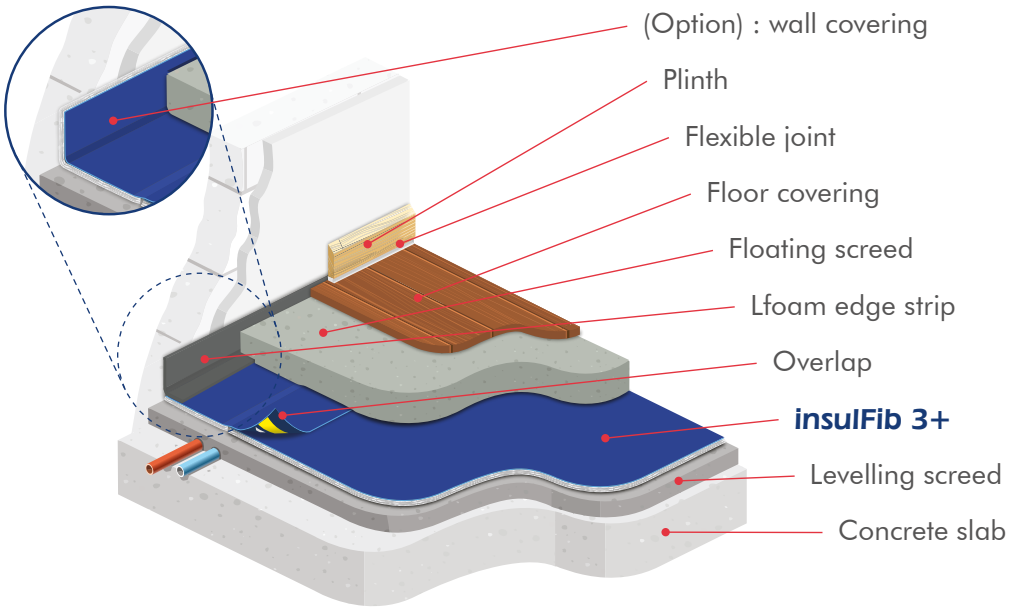
2 Installation of the underlay

Place the insulFib 3+ while making sure that the white felt faces the ground. The insulFib 3+ strips must be laid side by side, with no space in-between. Remove the protective film from the flat overlap made of spunbond non-woven fabric (6 cm) and make sure to fully cover the parallel insuliFib 3+ strip. Use an edge strip made of PE-foam (Lfoam) or pull-up more or less 15 cm of insulFib 3+ along the walls. The vertical ducts have to be insulated (or covered) either with flexible sleeves or with handmade strips of insulFib 3+.

3 Making of the screed

Immediately after placing the underlay, pour a reinforced screed with a minimum thickness of 6 (allowed to be ≥4.5 cm locally). In case of underfloor heating, the thermal panels must be laid upon the underlay. When the screed and the floor covering have been successfully placed, cut the remaining insulFib 3+ or the remaining PE-foam circumferential strip. The plinth has to be placed slightly higher than the floor covering in order to avoid lateral acoustic transmissions. The last step would be to create a flexible joint under the plinth.

The screed and the slab made of hydraulic binders have to comply with the local regulation.



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