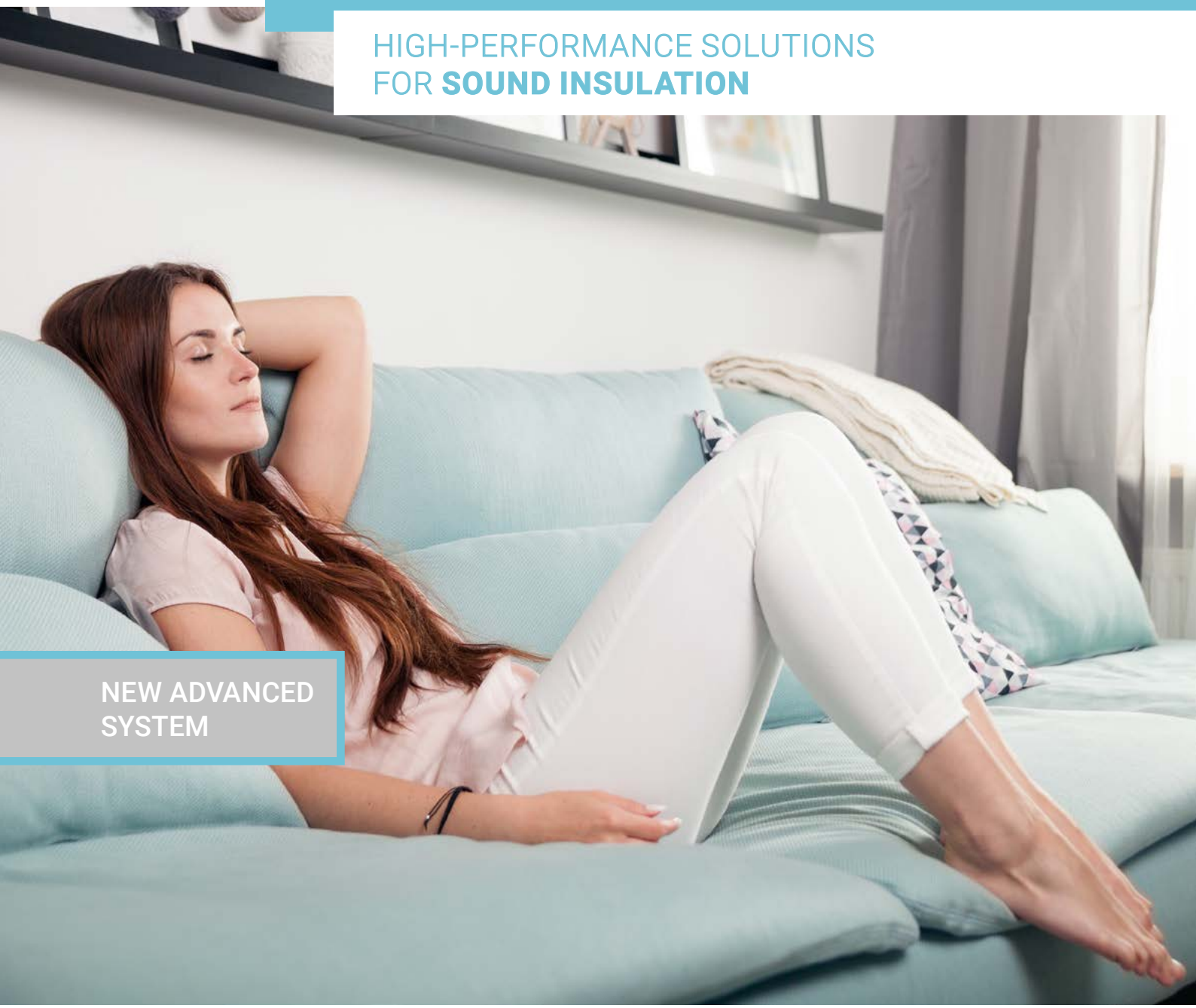
TeMa
Interior
Solutions

T-Silence

HIGH-PERFORMANCE SOLUTIONS FOR **SOUND INSULATION**



NEW ADVANCED SYSTEM

Company

Solutions and products for sound insulation and waterproofing of indoor environments and outdoor paving

TeMa Interior Solutions is the division dedicated to technical solutions for the building industry with systems specifically designed to guarantee maximum aesthetic and functional performance, such as the **T-Silence** range, presented in this catalogue, with excellent impact sound deadening properties thanks to materials with minimum thicknesses, low-invasive application methods and reduced installation times.

On the TeMa Interior Solution department website you can also find the innovative **TH2 Stop** range, which is ideal for waterproofing surfaces in bathrooms or for installing ultra-light waterproofed panels in bathrooms. The **T-K** range is ideal for draining and waterproofing terraces and balconies.

Extremely functional for improving efficiency on-site, **No-Crack** disconnecting panels are the best solution for laying tiles even over screeds that have not yet been stabilised.

www.temainterior.com

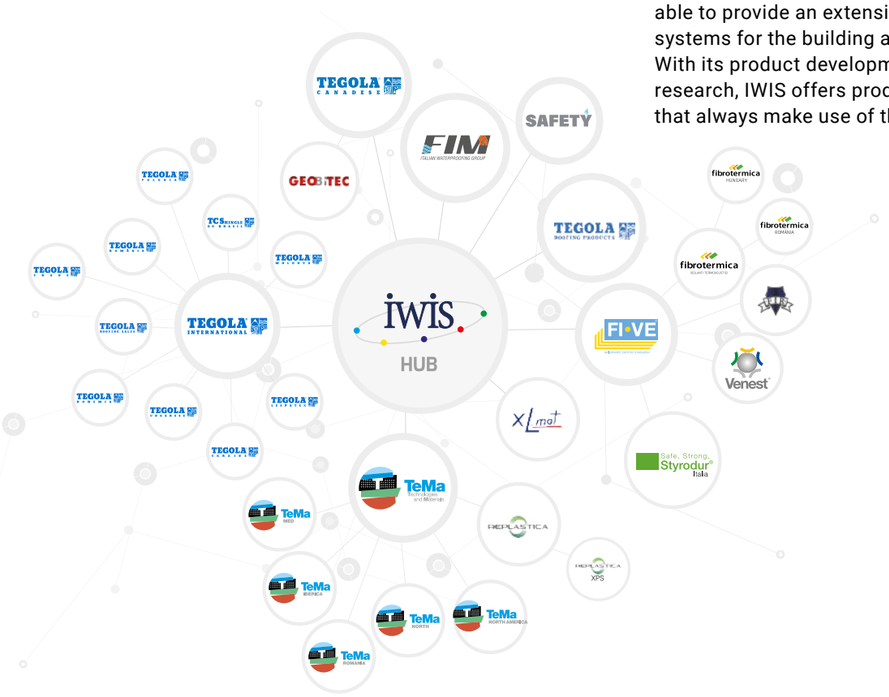
Group

IWIS
Insulation Waterproofing Industrial Systems

IWIS is a “thinking holding” established to efficiently manage its member companies, enhancing all aspects of their operation.
The synergies achieved thereby benefit all aspects of production, operation and logistics as well as the commercial and research and development activities.

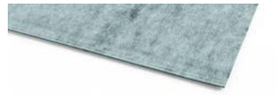
It is called a “thinking holding” because it is a group of companies that understands the critical thinking and ideas necessary to satisfy the diverse expectations and demands from a chain of professionals, retailers, installers and contractors.

With 15 factories, 11 international subsidiaries, and a global distribution network IWIS provides both technical and sales support in over 70 territories worldwide. It is a truly reliable global supply partner able to provide an extensive range of products and systems for the building and construction industry. With its product development clearly focused on research, IWIS offers products and systems that always make use of the latest technologies.



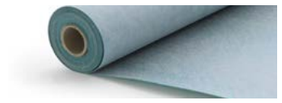
UNDER FLOOR

T-Silence dB21



Thickness	7.5	mm
Sound insulation	21	dB

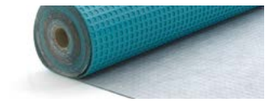
T-Silence dB17



Thickness	2.5	mm
Sound insulation	17	dB

UNDER SCREED

T-Silence mm 3.8



Thickness	3.8	mm
Sound insulation	24	dB

T-Silence mm 5

Thickness	5	mm
Sound insulation	23	dB

T-Silence mm 9.5

Thickness	9.5	mm
Sound insulation	30	dB

T-Silence mm 10

Thickness	10	mm
Sound insulation	24	dB

Contents

Silence,
the new wellbeing range

The first step is to assess the problem

When choosing insulation for the cladding of a building, we often consider thermal insulation, however, protection against noise is also essential for the overall comfort of a building.
Environmental comfort implies the general wellbeing of the people who live/work in a certain place, either their own home or workplace. Hence, comfort not only depends on suitable thermohygrometric conditions and light (thermal and visual comfort) but also on the right sound insulation: noise is a sign of disturbance that our ears perceive as unpleasant and annoying, thus negatively influencing the psychological and physical wellbeing of individuals and increasing stress and irritability.
Noise coming from outside or from adjacent apartments creates situations that people experience with extreme discomfort, leading them to say, “Either I find a solution or I move house!”, otherwise this may lead to unpleasant arguments with neighbours.
Unfortunately, moving house is not always an option, whereas you can solve acoustic problems concerning noise caused by any type of impact: **with the T-Silence range you will solve your problems with a little thickness and a material that is quick and easy to lay.**

Needless to say, sound insulation in buildings is a key factor to people’s wellbeing.

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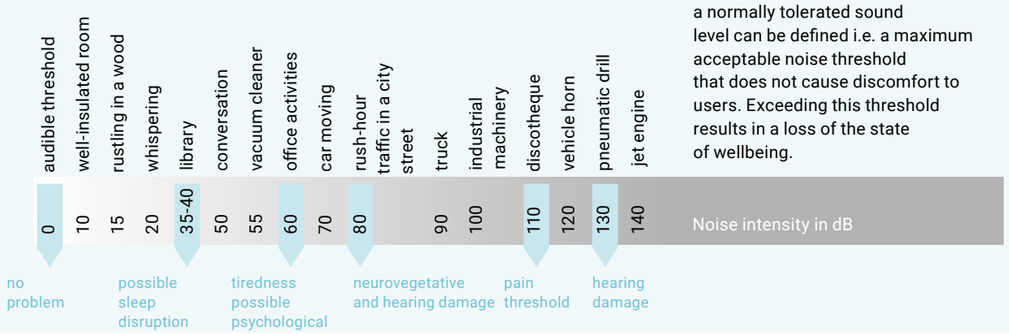
The World Health Organization (WHO) defines the concept of health as “the state of physical, mental and social wellbeing, and not merely the absence of disease or infirmity”.

Exposure to noise prevents us from carrying out everyday activities. When our efficiency and ability to concentrate are reduced, it can lead to psychological distress in the long term.

Acoustic comfort and sound level

Acoustic comfort can be assessed by considering the sound level concept.



Depending on the intended use and the activity carried out in it, a normally tolerated sound level can be defined i.e. a maximum acceptable noise threshold that does not cause discomfort to users. Exceeding this threshold results in a loss of the state of wellbeing.

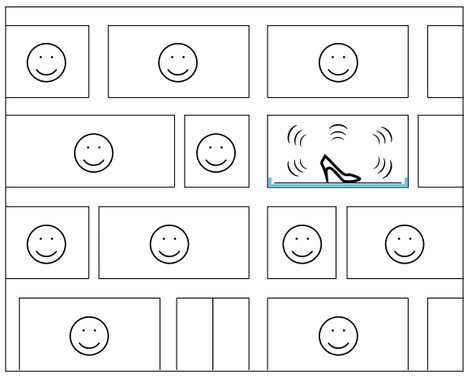
Legal Provision

Horizontal Partitions Legal Provision: Prime Ministerial Decree (DPCM) of 5.12.1997

The current legal provision in Italy sets specific sound insulation limits for horizontal partitions: more specifically, the Prime Ministerial Decree (DPCM) of 5.12.1997 "Establishment of passive noise requirements of offices", defines the levels to be respected in terms of airborne noise insulation (television, radio, voice, etc.) and impact noise.

With regard to insulation against noise, horizontal partitions must feature a minimum performance of the weighted apparent sound reduction index (R'w) and must not exceed a set weighted impact sound pressure level (L'nw). In short, airborne noise must be deadened at least to a specific value in decibels (50 dB for residential buildings) and the impact noise caused by a normalised source (a machine with 5 metal drills must not exceed established limits (e.g. in apartments the limit is 63 dB).

Contents	
R'w	Weighted apparent sound reduction index of elements separating two different housing units.
D2m, nT, w	Standardised sound insulation of a façade
L'nw	Normalised impact noise level that each separating horizontal element must provide when subjected to impact noise.
LASmax	Maximum sound level referring to noise caused by systems with discontinuous operation.
LAeq	Equivalent sound level referring to noise caused by systems in continuous operation.



FLOATING FLOOR
With the floating floor system, vibrations are not transmitted throughout a building and noise is "absorbed" by the deformation of the insulation due to impact.

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The provisions of the Prime Ministerial Decree (DPCM) must be observed in individual living environments. Hence, for example, in a residential building every room must have an impact noise level index lower than or equal to 63 dB, whereas this level must be lower than 58 dB in a school or hospital.

The following table summarises the legislative requirements according to the building category:

Building category and intended use	
A	Residential buildings and similar
B	Office buildings and similar
C	Hotels, guesthouses and similar
D	**Hospitals, clinics, nursing homes** and similar
E	Buildings used for all types of **school activities** and similar
F	Buildings used for recreational and worship activities and similar
G	Buildings used for commercial activities and similar

Cat.	R'w	D2m, nT, w	L'nw	LASmax	LAeq
A	50	40	63	35	35
B	50	42	55	35	35
C	50	40	63	35	35
D.	55	45	58	35	25
E	50	48	58	35	25
F	50	42	55	35	35
G	50	42	55	35	35

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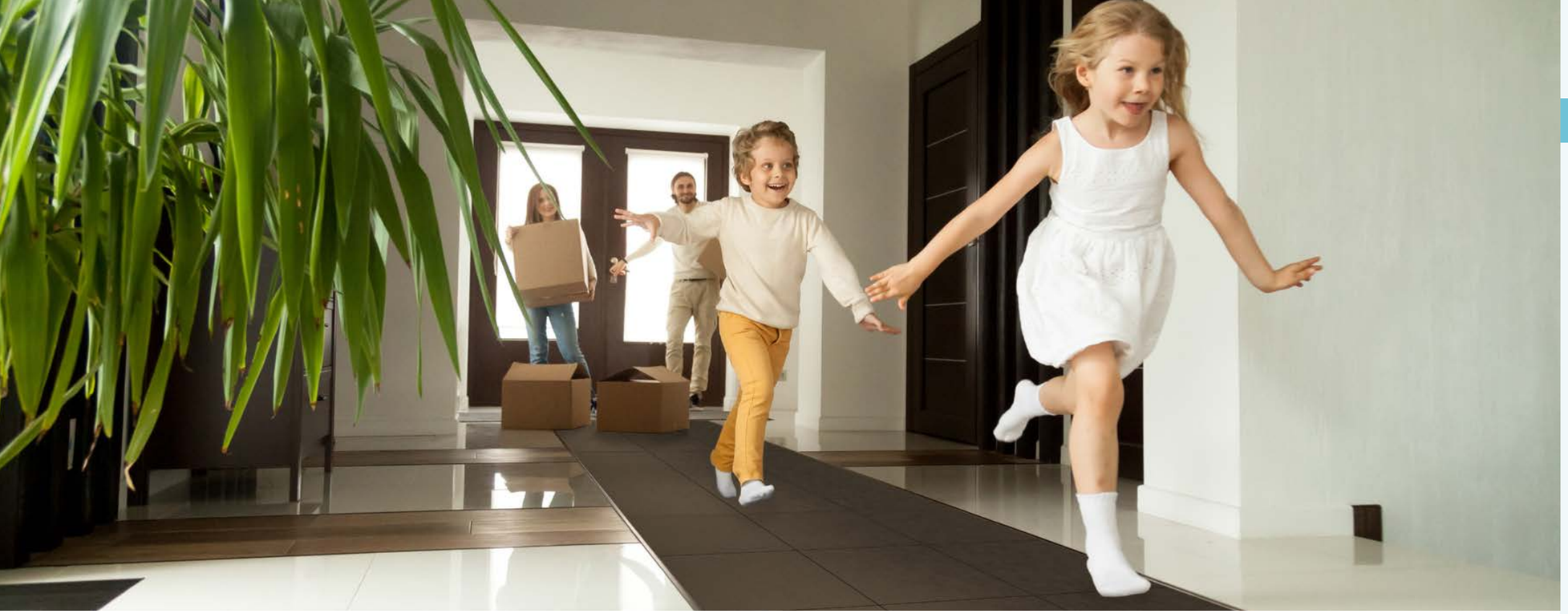
By issuing the Ministerial Decree (DM) of 27 September 2017, the Government introduced the Minimum Environmental Criteria (CAM) for commissioning services for the planning and works for the new construction, renovation and maintenance of public buildings. The Minimum Environmental Data, paragraph 2.3.5.6, includes the additional new features of acoustic comfort, determining parameters for passive acoustic requirements that are more stringent than those required by the Prime Ministerial Decree (DPCM) of 5.12.1997 and referring to the tables of the standard regarding the Acoustic Classification of Buildings, the UNI 11367 standard. In short, **hospitals, schools** and **nursing homes** must observe the "higher performance" levels given in the table section A.1 of Appendix A and must also observe the "good performance" values given in the table section B.1 of Appendix B of the aforesaid standard.

Performance	NORMAL (dB)	SUPERIOR (dB)
D2m,nT,w	38	43
R'w	50	56
L'n,w	63	53
Lic	32	28
Lid	39	34
Lic in in-patient rooms	35	30
DnT,w overlapping environments	50	55
DnT,w adjacent environments	45	50
L'n,w the same unit, overlapping	63	53

Table section A.1 - Appendix A – Acoustic requirements of **hospitals, nursing homes and schools**.

Performance level	Indicator of sound insulation normalized for community or collective environments connected via entrances or living space openings with DnT,w (dB)	
	Hospitals and schools	Other intended uses
Excellent performance	≥ 34	≥ 40
Good performance	≥ 30	≥ 36
Basic performance	≥ 27	≥ 32
Low performance	≥ 23	≥ 28

Table section B.1 Appendix B - Sound insulation requirements normalized for community or collective environments of a building connected via entrances or living space openings.



Areas of application

CONSTRUCTION SYSTEM WITH UNDERFLOOR INSULATION

Acoustic renovation or improvement involves finding a solution to noise problems in existing environments and is often associated with difficult and expensive works that entail a temporary move from the place where the works are to be carried out. As a result, the choice is very often made not to carry out the construction works! All this is true for some construction techniques. Alternatively, with the innovative T-Silence dB17 or T-Silence dB21 range, the work can be done in extremely reduced times, since dry-installation systems are involved that do not require new screeds or waiting for them to dry.

An additional important advantage of the T-Silence system is that it can be applied without demolishing the floor and/or the underlying screed (except in cases where they are not irreparably disconnected and unstable).

COST-EFFECTIVE PROJECTS	REDUCED TIMES THANKS TO A DRY-INSTALLATION SYSTEM	NO NEED TO DEMOLISH THE FLOOR

CONSTRUCTION SYSTEM WITH FLOATING SCREED

In addition to innovative dry-installation systems, the T-Silence range offers disconnecting systems for implementing floating screeds, i.e. the construction technique used to separate structural elements that would otherwise create bridges and transmit vibrations (and, as a result, noise) to adjacent elements with their diffusion, along all the structures of a building, even to very distant areas from the same source.
The range of products includes various types of resilient materials, with related complementary accessories, intended to guarantee systems that, when properly laid, provide effective and long-lasting deadening of impact noise.

STRUCTURAL TYPES

The T-Silence system is ideal for the sound insulation of new floors on various structural types.

CONCRETE floor
- ✓ Acoustic renovation or improvement
- ✓ Floating screed

CLAY/CEMENT MIX floor
- ✓ Acoustic renovation or improvement
- ✓ Floating screed

WOOD floor with traditional structure
- ✓ Acoustic renovation or improvement
- ✓ Floating screed

WOOD floor with X-LAM structure
- ✓ Acoustic renovation or improvement
- ✓ Floating screed

Underfloor
sound insulation

Underfloor applications

CERAMIC TILE / STONEWARE / STONE FINISH

Areas of application

CONSTRUCTION SYSTEM
WITH UNDERFLOOR INSULATION
1. Over an existing floor
2. With removal of an existing floor
3. With removal of a fitted carpet

Underfloor applications

Areas of application

CONSTRUCTION SYSTEM
WITH UNDERFLOOR INSULATION

CERAMIC TILE / STONEWARE/ STONE FINISH

For loads not exceeding 600 kg/m²

Acoustic improvement for floors with a ceramic tile finish and removal/ preservation of the existing underlying floor

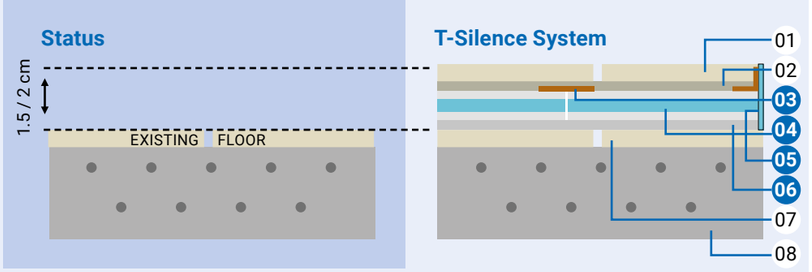
Dry installed construction works involving the T-Silence dB17 or T-Silence dB21 range allow work to be done on existing floors, choosing whether or not to preserve existing layers in order to create a floating floor with a ceramic tile or stone finish laid with adhesive directly over the insulating material.

T-Silence Product Range		
●	T-Silence dB21	ΔL_w: 21 dB
●	T-Silence dB17	ΔL_w: 17 dB
	T-Silence mm 3.8	
	T-Silence mm 5	
	T-Silence mm 9.5	
	T-Silence mm 10	
T-Silence Accessories		
●	dB Band	
	T-Band	
●	dB Fix	
	Class C2 cementitious adhesive	
●	dB Strip	

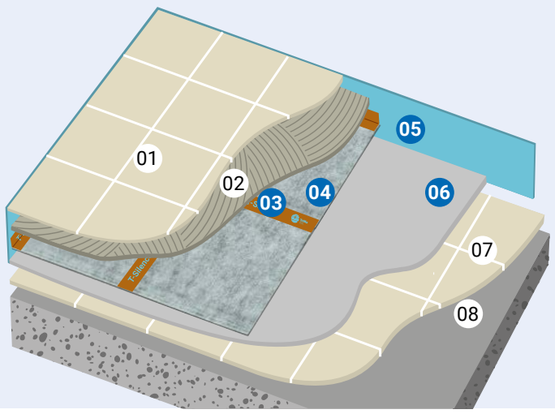
1

Implementation of ceramic tile / stoneware / stone floor over an existing ceramic tile floor:

01. New ceramic tile / stoneware / stone floor
02. Class C2 cementitious adhesive
03. dB Strip
04. T-Silence dB21 / T-Silence dB17
05. dB Band
06. dB Fix
07. Existing floor
08. Existing screed



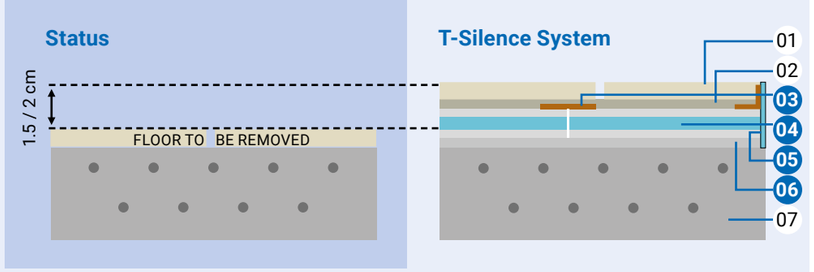
N.B. After the completion of works, the difference in total thickness will be approx. 1.5 / 2 cm



2

Implementation of ceramic tile / stoneware / stone floor with removal of an existing floor:

01. New ceramic tile / stoneware / stone floor
02. Class C2 cementitious adhesive
03. dB Strip
04. T-Silence dB21 / T-Silence dB17
05. dB Band
06. dB Fix
07. Existing screed



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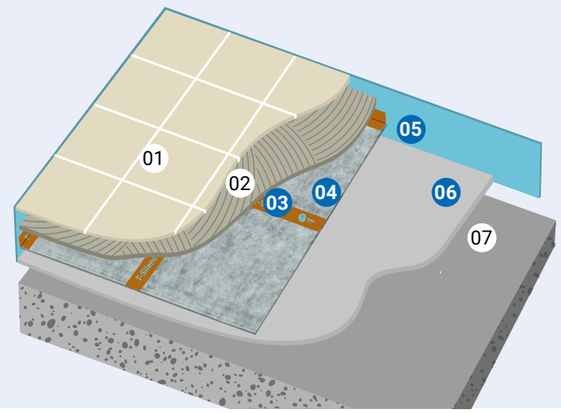


Areas of application

CONSTRUCTION SYSTEM
WITH UNDERFLOOR INSULATION

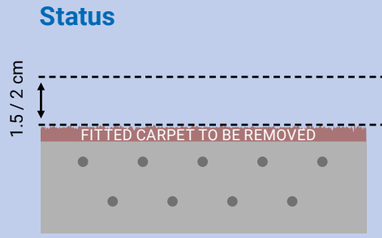
T-Silence Product Range		
●	T-Silence dB21	ΔL_w: 21 dB
●	T-Silence dB17	ΔL_w: 17 dB
	T-Silence mm 3.8	
	T-Silence mm 5	
	T-Silence mm 9.5	
	T-Silence mm 10	
T-Silence Accessories		
●	dB Band	
	T-Band	
●	dB Fix	
	Class C2 cementitious adhesive	
●	dB Strip	

3

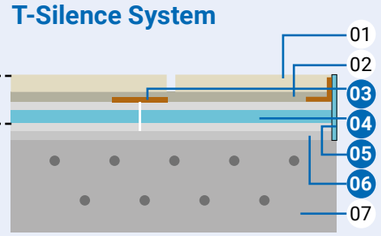
Implementation of ceramic tile / stoneware / stone floor with removal of a fitted carpet:

01. New ceramic tile / stoneware / stone floor
02. Class C2 cementitious adhesive
03. dB Strip
04. T-Silence dB21 / T-Silence dB17
05. dB Band
06. dB Fix
07. Existing screed

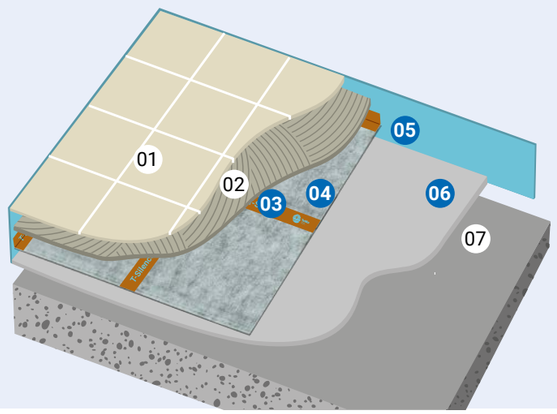
Status



T-Silence System



N.B. After the completion of works, the difference in total thickness will be approx. 1.5 / 2 cm



Underfloor
sound insulation

Underfloor applications

WOOD FINISH

Areas of application

CONSTRUCTION SYSTEM
WITH UNDERFLOOR INSULATION
1. Over an existing floor
2. With removal of an existing floor

Underfloor applications

WOOD FINISH

Areas of application

CONSTRUCTION SYSTEM
WITH UNDERFLOOR INSULATION

T-Silence Product Range		
●	T-Silence dB21	ΔL_w: 21 dB
●	T-Silence dB17	ΔL_w: 17 dB
	T-Silence mm 3.8	
	T-Silence mm 5	
	T-Silence mm 9.5	
	T-Silence mm 10	
T-Silence Accessories		
●	dB Band	
	T-Band	
●	dB Fix	
	Adhesive	
●	dB Strip	

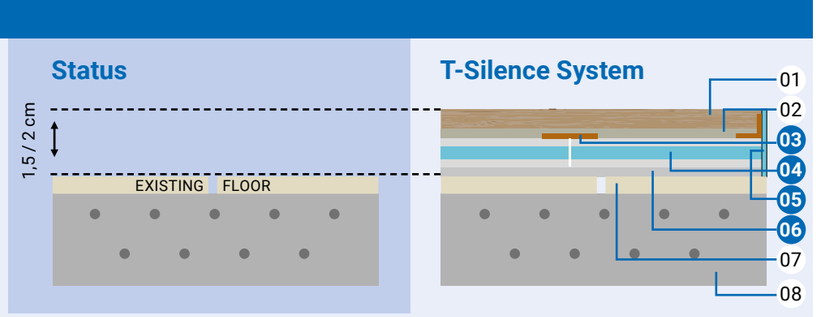
Acoustic improvement for floors with wood finish and removal/ preservation of an existing underlying floor

The T-Silence dB17 or T-Silence dB21 range allows the renovation of an existing floor even when a wood finish is chosen, which can be laid using adhesive or dry-installation for any other type of use.
The underlying layer does not have to be demolished.

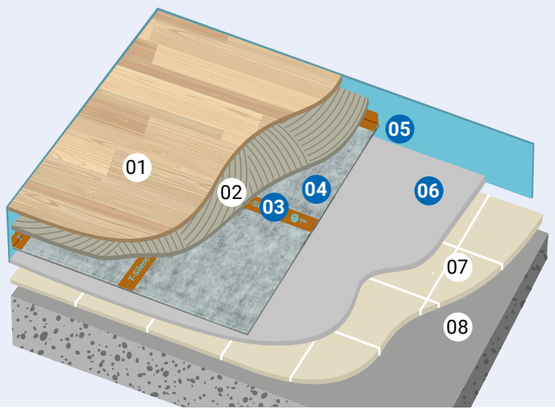
1

Implementation of a wood floor over an existing floor:

01. New wood floor
02. Adhesive*
03. dB Strip
04. T-Silence dB21 / T-Silence dB17
05. dB Band
06. dB-Fix
07. Existing floor
08. Existing screed



N.B. After the completion of works, the difference in total thickness will be approx. 1.5 / 2 cm

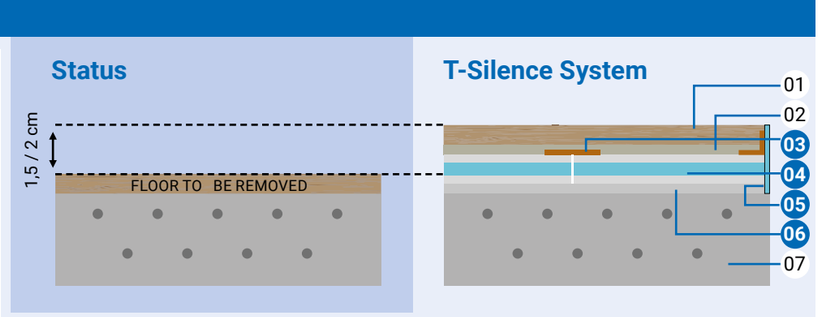


* Adhesive will not be required for dry-installed floating floors.

2

Implementation of a wood floor with removal of an existing floor:

01. New wood floor
02. Adhesive*
03. dB Strip
04. T-Silence dB21 / T-Silence dB17
05. dB Band
06. dB Fix
07. Existing screed



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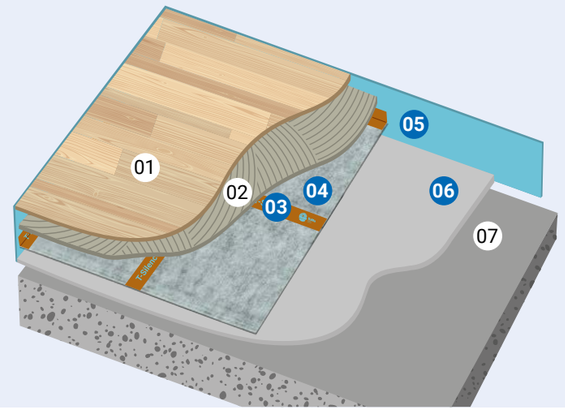


* Adhesive will not be required for dry-installed floating floors.

Underfloor
sound insulation

Underfloor applications

PVC / LINOLEUM FINISH

Areas of application

CONSTRUCTION SYSTEM
WITH UNDERFLOOR INSULATION

PVC / LINOLEUM FINISH

T-Silence Product Range	
● T-Silence dB21	ΔL_w: 21 dB
● T-Silence dB17	ΔL_w: 17 dB
T-Silence mm 3.8	
T-Silence mm 5	
T-Silence mm 9.5	
T-Silence mm 10	
T-Silence Accessories	
● dB Band	
T-Band	
● dB Fix	
Adhesive	
● dB Strip	

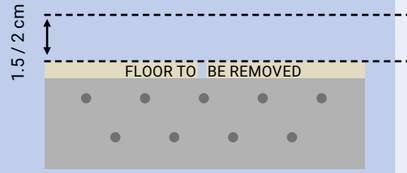
Acoustic improvement for floors with PVC / linoleum finish and removal of an existing underlying floor

A floor can be easily replaced by removing the existing one and inserting a dry-installed sound-deadening system in the T-Silence dB21 / dB17 range. PVC or linoleum are the most commonly used finishes in buildings such as hospitals and schools.

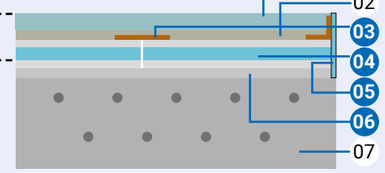
Implementation of a PVC / linoleum floor with removal of an existing floor:

01. New floor
02. Adhesive
03. dB Strip
04. T-Silence dB21 / T-Silence dB17
05. dB Band
06. dB Fix
07. Existing screed

Status



T-Silence System



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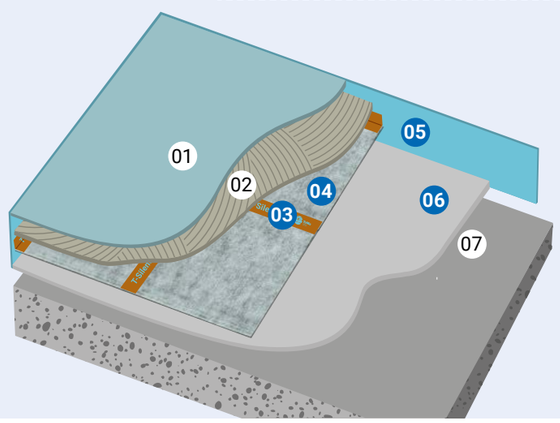


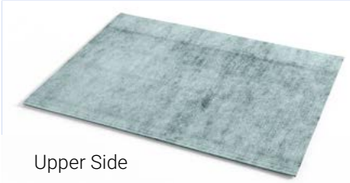
T-Silence underfloor

TECHNICAL DATA SHEETS

T-Silence dB21

STRUCTURE: insulating panel comprising an inner polymeric core, bonded on both sides with special fabrics.
The product has been designed to be installed on a screed or floor and then be directly clad with a ceramic tile or wood floor.

Composite	Legal provision	Value	Unit of measurement	Tol.
Weight	EN 9864	6,5	Kg/m²	±20%
Thickness	EN 9863	7,5	mm	±20%
Inner core density		1,35	g/cm³	
Physical Properties				
S_d	DIN 52615	>120	m	
Thermal conductivity at 10°C (λ)	EN 12667	0,053	W/m K	
Acoustic Properties				
Reduction in impact noise #0037/DC/ACU18 CSI S.p.A. (Milan); tests performed on a surface area > 10 m²	EN ISO 10140-3 EN ISO 717-2	21	dB	
Mechanical Properties				
Compression test under constant load (5 kPa 122 days)	EN 1606	<1	mm	
Robinson Wheel Test Test Report #3771/18 Centro Ceramico (Bologna)	ASTM C627	Light Commercial Rating		
Compressive strength at 10% deformation	ASTM 1621	4,217	kPa	
Dimensions				
Panel Format				
Length		98	cm	±0,5
Width		66	cm	±0,5



Upper Side

Lower Side

Pack		
Pcs	5	
Weight	22	kg/box
Surface	3,23	m²

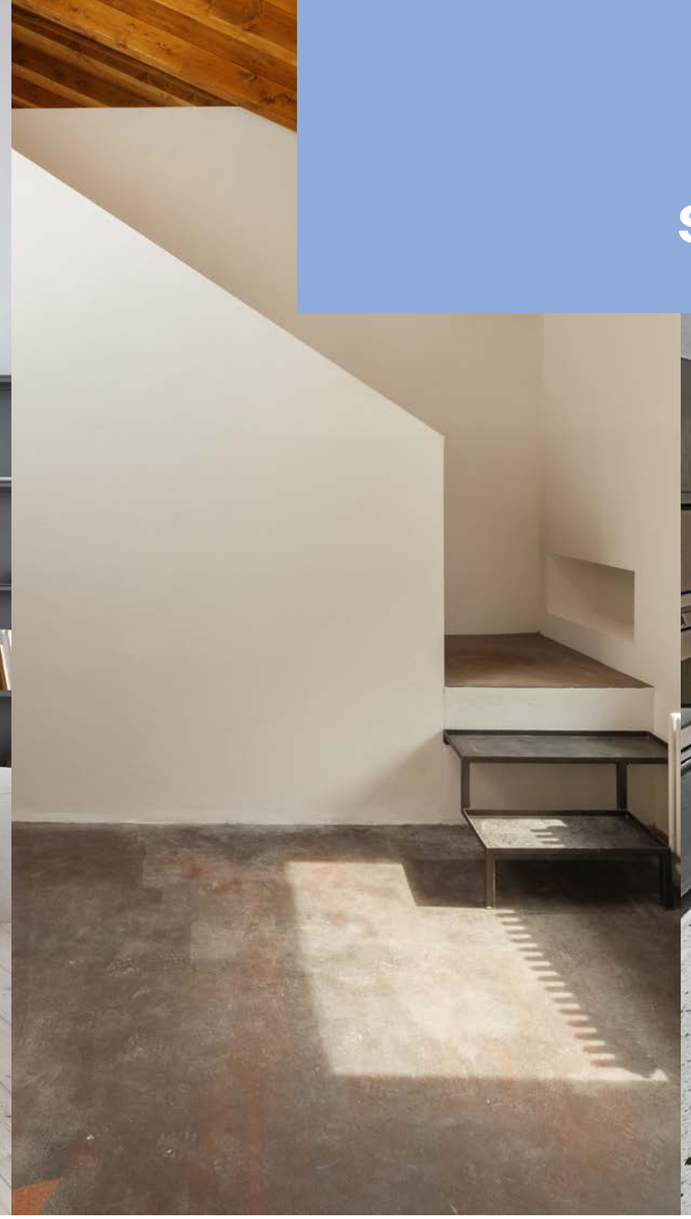
TECHNICAL DATA SHEET

T-Silence dB17

STRUCTURE: a roll comprising a polymeric sheet bonded on one side with a non-woven resilient polypropylene fabric, with a spunbond fabric on the other side.
The product has been designed to be installed on a screed or floor and then directly cladd with a ceramic tile or wood floor.

Composite	Legal provision	Value	Unit of measurement	Tol.
Weight	EN 9864	1,1	Kg/m²	±5%
Thickness	EN 9863	2,5	mm	±20%
Inner core density		0,95	g/cm³	
Physical Properties				
S_d	DIN 52615	>60	m	
Thermal conductivity at 10°C (λ)	EN 12667	0,04	W/m K	
Acoustic Properties				
Reduction in impact noise Test Report #0050/DC/ ACU18 CSI spa (Milano); tests performed on a surface area >10 m²	EN ISO 10140-3 EN ISO 717-2	17	dB	
Mechanical Properties				
Compression test under constant load (122 days)	EN 1606	<0,07	mm	
Robinson Wheel Test Test Report #8069/18 Centro ceramico (Bologna)	ASTM C627	Light Commercial Rating		
Compressive strength at 10% deformation	ASTM D1621	1,471	kPa	
Dimensions				
Roll Format				
Length		10	m	±0,1
Width		1	m	±0,05

TECHNICAL DATA SHEET



Under screed **sound insulation**

Under screed applications

CERAMIC TILE / STONEWARE / STONE FINISH -
WOOD - RESIN - VENETIAN TERRAZZO

Areas of application

CONSTRUCTION SYSTEM
WITH FLOATING SCREED

1. New floor
2. New floor and application below underfloor heating
3. New floor for a terrace or balcony

Under screed applications

CERAMIC TILE / STONEWARE / STONE FINISH - WOOD - RESIN - VENETIAN TERRAZZO

New floor with sound insulation implemented using the floating screed technique

The floating screed technique allows you to create a gap with resilient material that completely separates the screed from adjacent structural elements, preventing the diffusion of sound waves.
The T-Silence range gets to the heart of the acoustic problem of horizontal partitions, providing the most effective intervention works thanks to a complete complementary system of accessories.

Areas of application

CONSTRUCTION SYSTEM WITH FLOATING SCREED

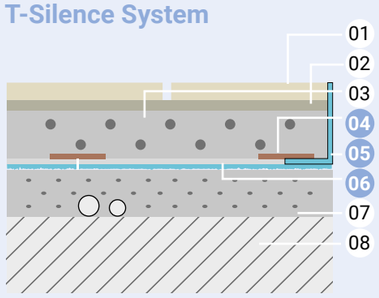
T-Silence Product Range		
	T-Silence dB21	
	T-Silence dB17	
●	T-Silence mm 3.8	ΔL_w: 24 dB
●	T-Silence mm 5	ΔL_w: 23 dB
●	T-Silence mm 9.5	ΔL_w: 30 dB
●	T-Silence mm 10	ΔL_w: 24 dB
T-Silence Accessories		
	dB Band	
●	T-Band	
	dB Fix	
	Adhesive	
●	dB Strip	

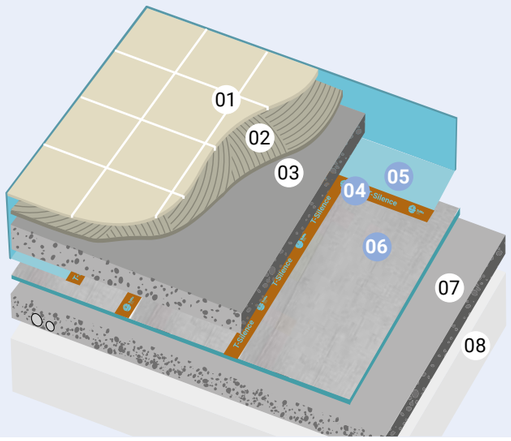
1

Implementation of a new floor made of ceramic tiles, stone, wood, resin or Venetian Terrazzo over various types of structure.

01. New floor
02. Adhesive
03. Floating screed
04. dB Strip
05. T-Band
06. T-Silence
07. Filler substrate for systems ducting
08. Floor

T-Silence System



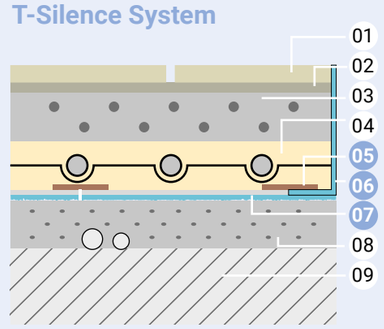


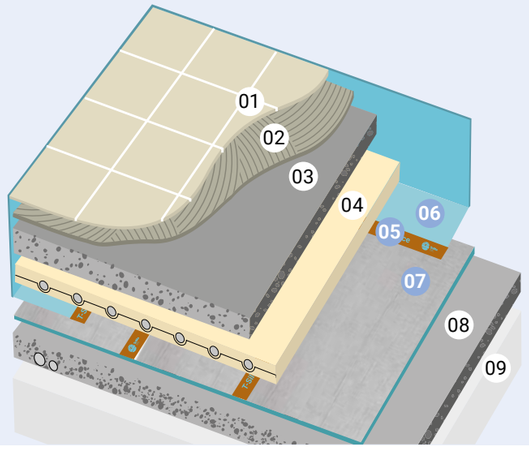
2

Implementation of a new floor and application of underfloor heating.

01. New floor
02. Adhesive
03. Floating screed
04. Underfloor heating system
05. dB Strip
06. T-Band
07. T-Silence
08. Filler substrate for systems ducting
09. Floor

T-Silence System





Areas of application

CONSTRUCTION SYSTEM
WITH FLOATING SCREED

T-Silence Product Range		
	T-Silence dB21	
	T-Silence dB17	
●	T-Silence mm 3.8	ΔL_w: 24 dB
	T-Silence mm 5	ΔL_w: 23 dB
	T-Silence mm 9.5	ΔL_w: 30 dB
	T-Silence mm 10	ΔL_w: 24 dB

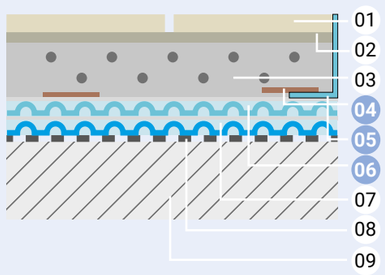
T-Silence Accessories	
	dB Band
●	T-Band
	dB Fix
	Cementitious adhesive
●	dB Strip

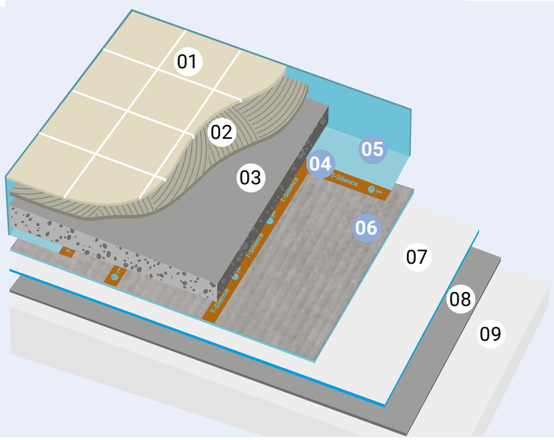
3

Implementation of a new floor for a terrace or balcony.

01. New floor
02. Class C2 cementitious adhesive
03. Floating screed
04. dB Strip
05. T-Band
06. T-Silence mm 3.8
07. Draining
08. Waterproofing
09. Sloping structure

T-Silence System





T-Silence under screed

TECHNICAL DATA SHEETS

T-Silence mm 3.8

STRUCTURE: resilient material for sound insulation against impact noise comprising an HDPE dimpled membrane bonded with a waterproof and breathable PP membrane.

Composite	Legal provision	Value	Unit of measurement	Tol.
Weight	EN 9864	570	g/m²	±10%
Thickness	EN 9863	3,8	mm	±15%
Inner core density		0,14	g/cm³	
Physical Properties				
S_d	DIN 52615	0,02	m	
Thermal conductivity at 10°C (λ)	EN 12667	0,100	W/m K	
Acoustic Properties				
Compressibility	UNI EN 12431	<1	mm	
Dynamic stiffness Test Report #N 312074, tests performed at the Istituto Giordano (RN)	EN 29052-1	41	MN/m³	
Reduction in impact noise, calculated on a screed with a mass per unit area of 100 kg/m² in compliance with regulations	UNI EN 12354-2	24	dB	
Mechanical Properties				
Compressive strength at 10% deformation	ASTM D1621	2,157	kPa	
Residual thickness after a creep strain of 5KPa and 3000h	EN 1606	3,35	mm	
Dimensions				
Roll Format				
Length	EN 1848-2	21,5	m	±0,2
Width	EN 1848-2	1,22	m	±0,1

TECHNICAL DATA SHEET

T-Silence mm 5

STRUCTURE: anti-impact thermo-acoustic insulation made of closed-cell cross-linked polyethylene foam.

Composite	Legal provision	Value	Unit of measurement	Tol.
Thickness		5	mm	±5%
Density		30	Kg/m³	±5%
Physical Properties				
Thermal conductivity at 10°C (λ)	EN 12667	0,039	W/m K	
Vapour diffusion resistance coefficient (μ)		2192		
Acoustic Properties				
Apparent dynamic stiffness	EN 29052-1	43	MN/m³	
Reduction in impact noise, calculated on a screed with a mass per unit area of 100 kg/m² in compliance with regulations	UNI EN 12354-2	23	dB	
Mechanical Properties				
Compressive strength at 10% deformation	UNI EN826	13	KPa	
Dimensions				
Roll Format				
Length	-	50	m	±0,2
Width	-	1,55	m	±0,1

TECHNICAL DATA SHEET

T-Silence mm 9.5

STRUCTURE: resilient material for the sound insulation of impact noise comprising a 3D mesh with monofilaments bonded with a breathable waterproof PP membrane, provided with a flat tab with butyl tape for overlaps.

Composite	Legal provision	Value	Unit of measurement	Tol.
Weight	EN 9864	645	g/m²	±10%
Thickness	EN 9863	9,5	mm	±15%
Inner core density		0,061	g/cm³	
Physical Properties				
Thermal conductivity at 10°C (λ)	EN 12667	0,05	W/m K	
SD	DIN 52615	0,02	m	
Acoustic Properties				
Compressibility	UNI EN 12431	1,5	mm	
Dynamic stiffness *Test Report #014-09 acuDS, performed at the MTL laboratory (Verona)	EN 29052-1*	13	MN/m³	
Reduction in impact noise	UNI EN 12354-2	27	dB	
Reduction in impact noise *Test Report #054-09 acuIN8, performed on a screed with dimensions 1m x 1m at the MTL laboratory (Verona)	UNI EN ISO140-3 UNI EN ISO 717-2 *	30	dB	
Mechanical Properties				
Compressive strength at 10% deformation	ASTM D1621	0,981	kPa	
Residual thickness after a creep strain of 5KPa and 3000h	EN 1606	9,05	mm	
Dimensions				
Roll Format				
Length	-	20	m	±0,2
Width	-	1,4	m	±0,1

TECHNICAL DATA SHEET

T-Silence mm 10

STRUCTURE: anti-impact closed-cell cross-linked polyethylene foam.

Composite	Legal provision	Value	Unit of measurement	Tol.
Thickness		10	mm	±15%
Density		30	Kg/m³	
Physical Properties				
Thermal conductivity at 10°C (λ)	EN 12667	0,039	W/m K	
Vapour diffusion resistance coefficient (μ)	-	2192		
Acoustic Properties				
Apparent dynamic stiffness	EN 29052-1	41	MN/m³	
Reduction in impact noise, calculated on a screed with a mass per unit area of 100 kg/m² in compliance with regulations	UNI EN 12354-2	24	dB	
Mechanical Properties				
Compressive strength at 10% deformation	UNI EN826	13	KPa	
Dimensions				
Roll Format				
Length	-	50	m	±0,2
Width	-	1,30	m	±0,1

TECHNICAL DATA SHEET

Installation Tips

Installation tips

The application of T-Silence dB21 and T-Silence dB17 is facilitated by the different implementation procedures chosen for use - either over an existing floor or where the floor has been removed.

IMPORTANT! FOLLOW THE INSTRUCTIONS:
- Do not leave any spaces uncovered by the insulating material;
- Do not let the cementitious adhesive come into contact with the screed or the underlying floor to avoid any “sound bridges”.

T-Silence dB21

01 T-Silence dB21 must always be applied to well-cleaned, dry flat surfaces.
The first step is to brush on the **dB Fix** adhesive.

02 Then the panels must be laid **parallel** to the chosen wall. The drying time for dB Fix is about 5 minutes.
Special care must be taken when sealing the panel and the walls at the sides.

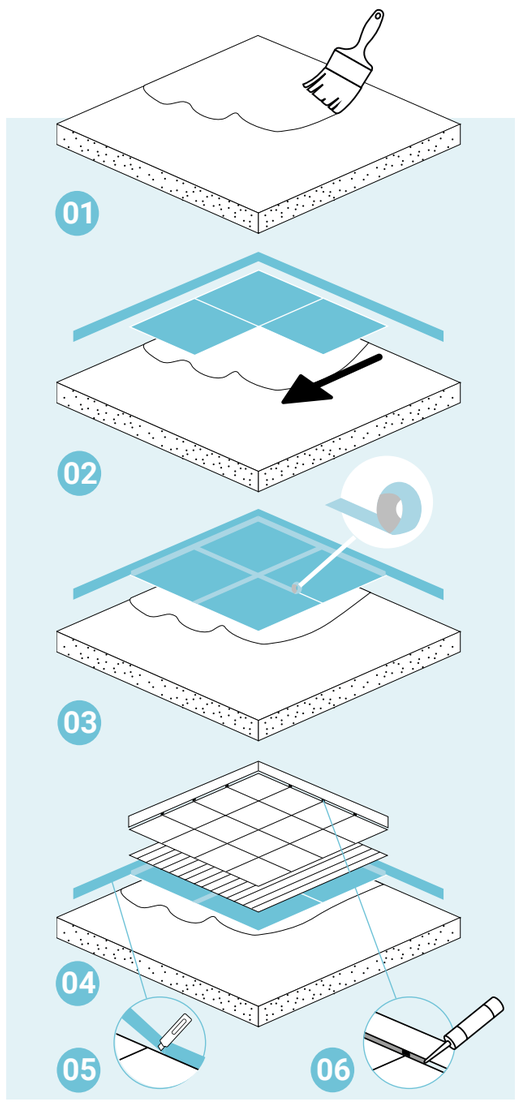
After laying T-Silence dB21, the self-adhesive **dB Band** must be applied under the tiles, which will stick to the walls.

03 The dB Band and the T-Silence dB21 insulation must be joined using the **dB Strip** tape.
The **joins between the panels can be protected using the dB Strip** tape to prevent the adhesive from penetrating and creating a any connection with the load-bearing structure (sound bridge).

04 Spreading the C2 cementitious adhesive and laying the finishing product.
After 24h, work can be done on the gaps and finishes.

05 Any excess amounts of **dB Band** must be trimmed only when the floor has been finished, using the straight blade cutter.

06 The baseboard/skirting board must be kept detached from the floor.
The remaining gap must be sealed with elastic material (silicone or similar).



QUICK AND EASY APPLICATION:

- Cost-effective installations
- Reduced times: dry-installation system
- Quick execution of works: installation will take just one day
- No need to demolish the floor
- Clean projects: no sand, cement or mixing
- Easily transported product

T-Silence dB17

T-Silence dB17 must always be applied to well-cleaned, dry flat surfaces.

01 The first step is to brush on the **dB Fix** adhesive. Then the rolls must be laid **parallel** to the chosen wall.*
Special care must be taken when sealing the panel and the walls at the sides.

02 After laying T-Silence dB17, the self-adhesive dB Band must be applied under the tiles, which will stick to the walls.
The dB Band and the T-Silence dB17 insulation must be joined using the dB Strip tape.

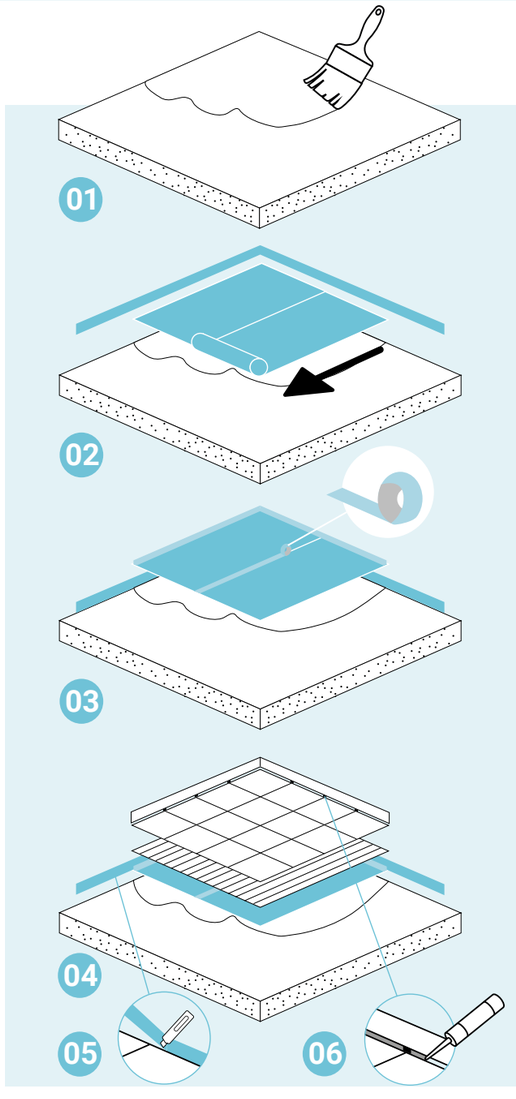
03 The joins between the panels must be protected using the dB Strip tape to prevent the adhesive from penetrating and creating a any connection with the load-bearing structure (sound bridge).

04 Spreading the Class 2 cementitious adhesive and laying the finishing product. After 24h, work can be done on the gaps and finishes.

05 Any excess amounts of **dB Band** must be trimmed only when the floor has been finished using the straight blade cutter.

06 The baseboard/skirting board must be kept detached from the floor.
The remaining gap must be sealed with elastic material (silicone or similar).

* *When laying the dB17 roll, the ends tend to remain raised and curved, so it is necessary to roll them in the opposite direction to flatten the roll.*



T-Silence mm 3.8 / 5 / 9.5 / 10

01 T-Silence 3.8 / 5 / 9.5 / 10 mm must always be applied to well-cleaned, dry flat surfaces.

The first step is lay the rolls **parallel** to the chosen wall with the white surface of the roll visible to the operator.

The **material must be shaped** using the straight blade cutter according to the type of room and any parts in excess must be removed.

02 The other rolls must be laid in the same way until the impact surface has been entirely covered, taking care to seal any lengthwise overlaps using the butyl adhesive tape provided with the product.*

03 The **dB Strip** tape can be used to seal the end joins.

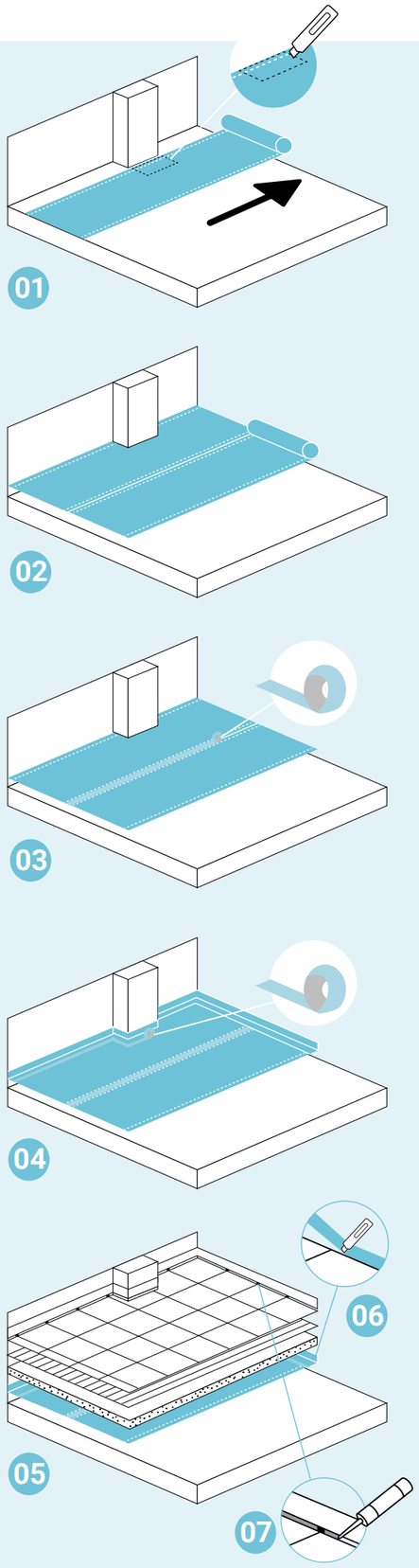
04 Perimeter insulation using **T-Band** under the screed and sealing the join area between T-Silence and T-Band under the screed.

05 Laying the self-levelling screed or sand-cement. Sanding the screed. Spreading the cementitious adhesive and laying the finishing product. After 24h, work can be done on the gaps and finishes.

06 Any excess amounts of T-Band must be trimmed only when the floor has been completed using the straight blade cutter.

07 The baseboard/skirting board must be kept detached from the floor. The join must be sealed with elastic material (silicone or similar).

** T-Silence 5 mm/ 10mm are made of polyethylene foam. They are not provided with butyl tape. After being laid and aligned, the rolls must be sealed with dB Strip.*



Accessories

OPTIMUM PERFORMANCE

| dB Band

Accessory for an under-tile membrane for sound insulation.

| T-Band

Accessory for an under-screed membrane for sound insulation.

| dB Fix

Quick adhesive for laying T-Silence dB21.

| dB Strip

Paper adhesive tape.

Recommended applications for T-Silence

Renovations or acoustic improvement	T-Silence dB21	T-Silence dB17	T-Silence mm 3.8	T-Silence mm 5	T-Silence mm 9.5	T-Silence mm 10
Type of finish						
CERAMIC TILES / STONEWARE / STONE						
Over an existing ceramic tile floor	✓	✓	-	-	-	-
Removal of an existing floor	✓	✓	-	-	-	-
Removal of a fitted carpet	✓	✓	-	-	-	-
WOOD						
Over an existing floor	✓	✓	-	-	-	-
Removal of an existing floor	✓	✓	-	-	-	-
PVC / LINOLEUM						
Over an existing floor	✓	✓	-	-	-	-
Floating screed	**T-Silence dB21**	**T-Silence dB17**	**T-Silence mm 3.8**	**T-Silence mm 5**	**T-Silence mm 9.5**	**T-Silence mm 10**
Structural type						
CONCRETE FLOOR	-	-	✓	✓	✓	✓
CLAY/CEMENT MIX FLOOR	-	-	✓	✓	✓	✓
WOOD FLOOR WITH TRADITIONAL STRUCTURE	-	-	-	-	✓	-
WOOD FLOOR WITH X-LAM STRUCTURE	-	-	-	-	✓	-
Construction system						
UNDERFLOOR HEATING	-	-	✓	✓	✓	✓
TERRACE OR BALCONY	-	-	✓	-	-	-
Type of finish						
CERAMIC TILE / STONEWARE / STONE, WOOD, RESIN, VENETIAN TERRAZZO	-	-	✓	✓	✓	✓

IMPORTANT:
The information in this brochure is based on the know-how acquired and the experience gained to date and only refers to our products and their features at the time of printing this brochure. This information provides no guarantee for legal purposes, nor does it establish product quality agreed upon in the contract. During application, the specific conditions of use must always be taken into account, especially from a physical, technical and legal point of view. All technical drawings are examples that represent a principle and are adapted to specific cases.

Notes

Cansiglio Forest
View from our Headquarter windows

Sustainability

A fundamental value for all companies in the IWIS Holding Group.

From the earliest years of industrial activities, the companies within the IWIS Group have set up their production plants using technologies that aim to minimize pollution into the soil, air or water: our ISO14001 certification certification is not an award but a commitment that the IWIS Group has made day after day to preserve the environment where we live and work.

Almost 50% of the energy used in the production processes comes from renewable sources: IWIS owns three photovoltaic plants - 200 kWp, 150 kWp and 100 kWp - and produces another 800 kWP with a cogenerator.

IWIS Holding invests heavily in R&D to guarantee the quality of its products, for technological innovation and respect for the environment.

The industrial Group also uses recycled materials in some of its production processes, and as a consequence it has 4 specific systems for recycling plastics.

We preserve the environment where we live

We use renewable energy sources

We invest in research and development

We use recycled materials

TeMa | Technologies and Materials
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and Materials

TeMa | Technologies and Materials

For more than 20 years, TeMa Technologies and Materials has been involved in environmental and construction engineering projects, making its mark with unique and highly competitive application solutions.
Since 2013, the company has been applying its own research in the interior building works sector, developing new high-performance materials in the fields of waterproofing and sound insulation.

Thanks to a modern production system (with branches in Italy, Spain, Turkey, Russia, Romania and the USA) and to a widespread sales network in more than 60 countries, TeMa offers customised solutions for all projects that involve structural elements for protection, maintenance and safety in the residential and civil building sectors and in the field of major environmental works.

TeMa stands out for its ongoing research into new products, the active involvement of designers and companies and customer assistance during the pre-sale stages and after installation.

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