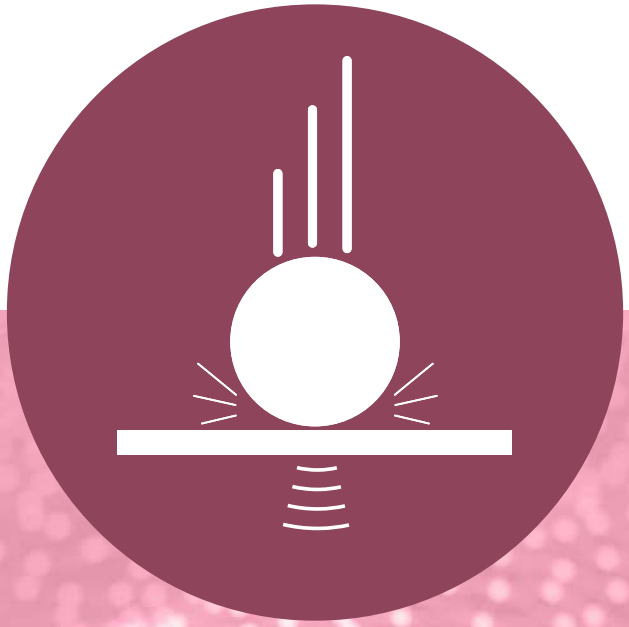
Impact Sound insulation Solutions

dB impact
impact sound insulation



engineering
acoustics

Certifications

Standards

Collaborations

dB impact

impact sound insulation

01 About dBcover Solutions

At dBcover® we know that in a dynamic world of constant change, the continued search for solutions which adapt to today's way of thinking is fundamental. These solutions must deliver real value, which is why at dBcover® we believe they have to be based on knowledge and experience.

By better understanding the physics of acoustics and the nature of the materials we work with, we are able to better develop innovative solutions which satisfy the needs of not just today's, but also tomorrow's society.

We efficiently and sustainably turn into reality that which was just an idea for the solution to a problem. As some of these problems are common, our solutions are designed to be affordable.

At dBcover® we don't just produce acoustic solutions, we seek to improve the acoustic comfort for people today and in the future.

Our values as a cutting edge technical company are:

Innovation
It's part of our DNA, it drives us to permanently overcome new challenges. Every solution we develop is the result of innovation and of our firm search to improve that which already exists.

Cooperation
Solid relationships with our partners are fundamental. We establish long-term relationships with all our vendors, collaborators, clients, technical prescribers, the scientific community, certifying bodies, and civil society.

Affordability
A high level of development implies the creation of cost effective and maximum performance solutions. As part of our development, we endeavour to create affordable acoustic solutions.

Sustainability
We believe in sustainable development. Raw material selection, manufacturing processes and performance improvement of our facilities make our solutions a choice with a commitment to sustainability.

Team
We know human capital is essential in the creation of value, our R&D team combines youth and experience in the chemical and acoustic sectors. This, in conjunction with our commercial tech team's ability to identify problems and propose solutions, allows us to develop bespoke solutions to specific acoustic challenges.

Facilities
Focused on innovation and continuous improvement, our R&D facilities combine chemical and acoustic labs with the capability of improving material design and simultaneously measure mechanical properties and acoustic performance. Our production facilities guarantee the same high standards of quality for each one of our products.

Technology
In our continued search of the development of materials who's physical properties (absorption,deflection, porosity, tortuosity, airflow resistance...) maximise acoustic performance, we have used different elastomeric based technologies (polyisoprene, polyurethane, natural latex) which cover the whole spectrum of acoustic needs. The manufacturing process of all of these enable us to maintain our commitment to sustainability and efficiency values.

Solutions
We do all this to deliver value added solutions for these four large applications: Impact sound isolation, airborne sound isolation, sound absorption, anti-vibration.

At dBcover® we endeavour to improve at a global level, we are aware that the best way to benchmark our solutions with those in the rest of the market is by complying with all norms and standards institutions, which is why our solutions are tested under strict ISO (Europe) and ASTM (North America) standards, and fallow all the norms and technical building codes. The more we demand from ourselves, the better the final result.

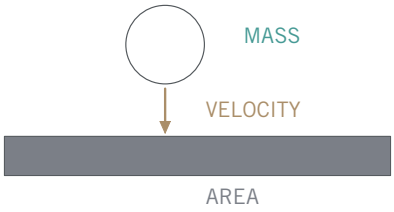
At dBcover® we believe in a sustainable society which does not compromise the future of the next generations. It is our responsibility to respect our community and our employees by making the use of our resources more efficient and reducing environmental impact to the maximum. Which is why when developing solutions we chose the option which includes cleaner and biodegradable raw materials and processes.

02 Acoustic Problem: Impact Sound

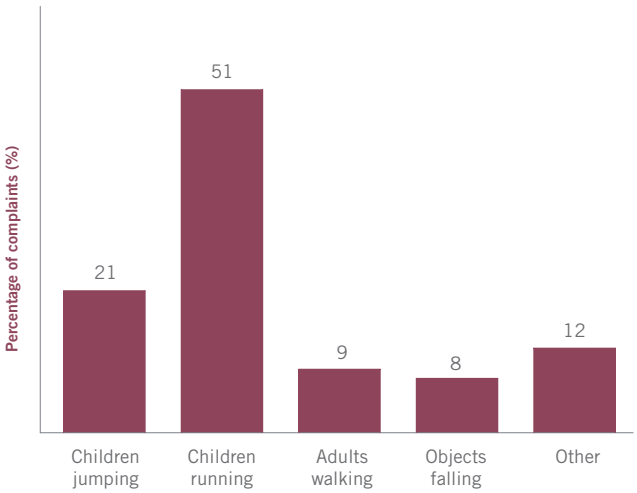
Impact Sound is structural airborne sound radiated to an enclosure by a wall or floor of a building when it is structurally excited by common activities such as foot-fall, slamming doors, movement of furniture, blows on the wall etc.

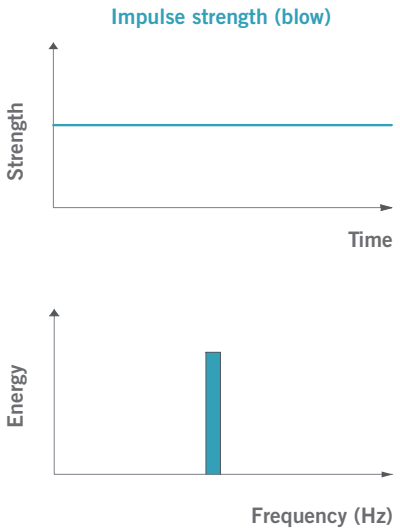
When generating an impact on a rigid structure, the structure vibrates radiating part of the unabsorbed energy and transferring it to the structure of the building, to connected building elements and finally to the adjacent disturbed air particles. This generates induced airborne noise with little attenuation. As impact noise is a phenomenon with a lot of energy in all frequencies, it is difficult to attenuate.

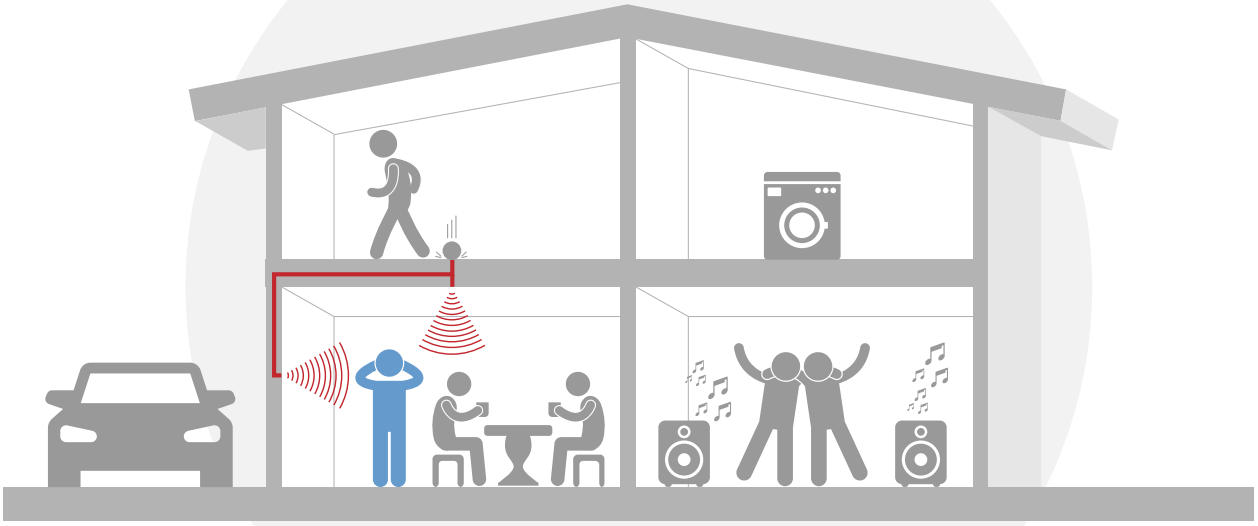
IMPACT ENERGY PHENOMENON



MAIN SOURCES OF IMPACT SOUND





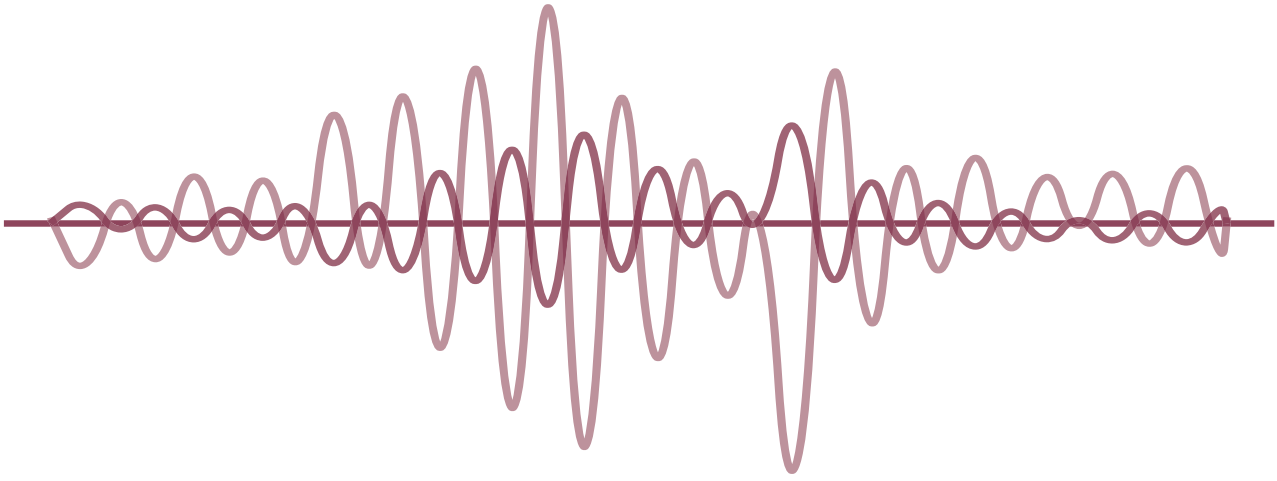


Consequences of Impact Sound

Impact noise problems have increased in recent years, mainly because lighter construction techniques have replaced the heavier ones of the past. These more flexible buildings are more sensitive to conveying and resonating structural airborne noise. Impact noise in the building, can cause a lot of problems:

On people's health, altering the normal activity at home and their rest. Impulsive noise produces stress in, irritability, acceleration of the respiratory rhythm and muscular tension.With impulsive noise the probability of waking up increases, diminishing the quality of sleep. A well insulated space is crucial in order to avoid health problems.

Of cohabitation between dwellings or with some place of excessively noisy activity. Some of the main conflicts between neighbours in the same community are due to the excess of structural airborne noise.



Impact Sound Solutions

To avoid these undesirable phenomena in noise generation, elastic materials are used under floating slabs, floors or any type of floor finishing. The floating floor acts as a protector, so when some impact occurs, it vibrates but due to elastic support, only a very small proportion of this vibration is transmitted to the structural floor. It radiates much less noise on the lower or lateral enclosure than if the same impacts directly hit the structure. The energy absorbed by the material is transformed into low-level heat thanks to a high loss factor (η) and damping (static deflection).

The most practical and economical alternativet to reduce impact sound noise is to intersperse elastic materials between the forge and the floating floor system (wet or dry). A floating floor is the one insulated (decoupled) from the structural floor (forged), with elastic layers, leaving no rigid contact point between the floors.

We have to take into account that in addition to vibrations transmitted to the receptor enclosure, the impacts can also generate air noise levels in the emitting enclosure when the elements are lightweight and low-cushioned. This is why a balanced solution which reduces the noise level in the receiver enclosure without increasing it in the emitting enclosure is to be achieved.

03 dBimpact Solutions

The solutions for impact noise are classified into two groups depending on the location of the material in the floor system:

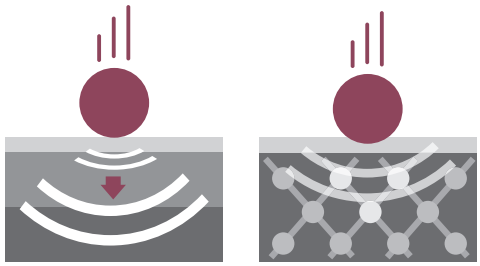
- Below floor-finishing solutions: Underlays (UL)
- Below Floating-Screed: Underscreed (US)

What is dBimpact Underlay (UL)?

dBimpact UL are materials based on low and high density polymers of different elastic, compressions and thermal properties to offer the best performance for each type of floor covering.

The most elastic solutions have excellent acoustic properties both of impact sound and drum sound reduction (also called reflected wlaking sound).

The hardest solutions are aimed at providing stability and dynamic stiffness to more flexibl floor finishing, which have less impact sound insulation problems. Therefore dBimpact UL have better compression properties than other equivalent solutions and offer excellent durability and thermal properties.



Advantages of the dBimpact UL solutions

Excellent acoustic impact sound insulation (IS)

Excellent reduction of reflected Walking Sound (RWS)

Good mechanical properties

Great compression resistance.
Resilience, non-deforming.
High absorption capability.
Low dynamic stiffness.
High Dimension Stability.

Low water steam transmission

Excellent cost / benefit ration

Easy to handle and install

Easy to transport.
Perfectly sealed joints.

Durability

Long-lasting, keeps all its properties with time.
No maintenance required.
Mold-resistant.
Ageing resistant.

Excellent thermal properties

Suitable for floor heating.

Good Fire Behavior

Excellent Fire Class B_{fl}-s1.

Sustainable

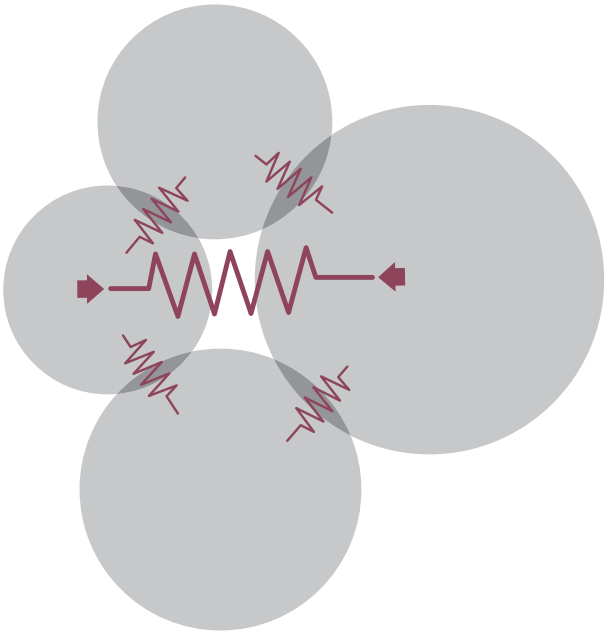
Minimal energy consumption in the manufacturing process.
Recyclabe.
Contains no plastizisers.
Ageing resistant.

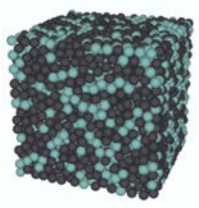
What is dBimpact Underscreed (US)?

dBimpact US are elastic granulated materials coupled with a flexible binder using the Slow Blended Cold Calandered (SBC² ®) technology with an anti-rupture layer. Its manufacturing process gives it greater elastic properties due to the encapsulated air between the non-pressed but calandered elastic particles.

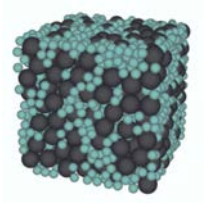
The elasticity of the binder together with the rubber particle itself provides higher insulation performance than similar materials under the concrete slab.

Its mechanical properties (low dynamic stiffness and high compression resistance) allow to perform with great efficiency in a wide range of loads of concrete or dry slab.





Standard Pressed System



ZC Technology (SBC²®)

Advantages of dBimpact US solutions

Excellent acoustic insulation for impact sound

Good thermal insulation

Good mechanical properties

Great compression resistance.
Resilience, non-deforming.
High absorption capability.
Versatile performance (wide range of loads).
High Dimension Stability.

Excellent cost / benefit ration

Easy to handle and install

Easy to transport.
Minimal floor conditioning and preparation.

Durability

Long-lasting, keeps all its properties with time.
No maintenance required.
Moisture and Mold-resistant.
Ageing resistant.

Good Fire Behavior

Excellent Fire Class B_{fl}-s1.

Sustainable

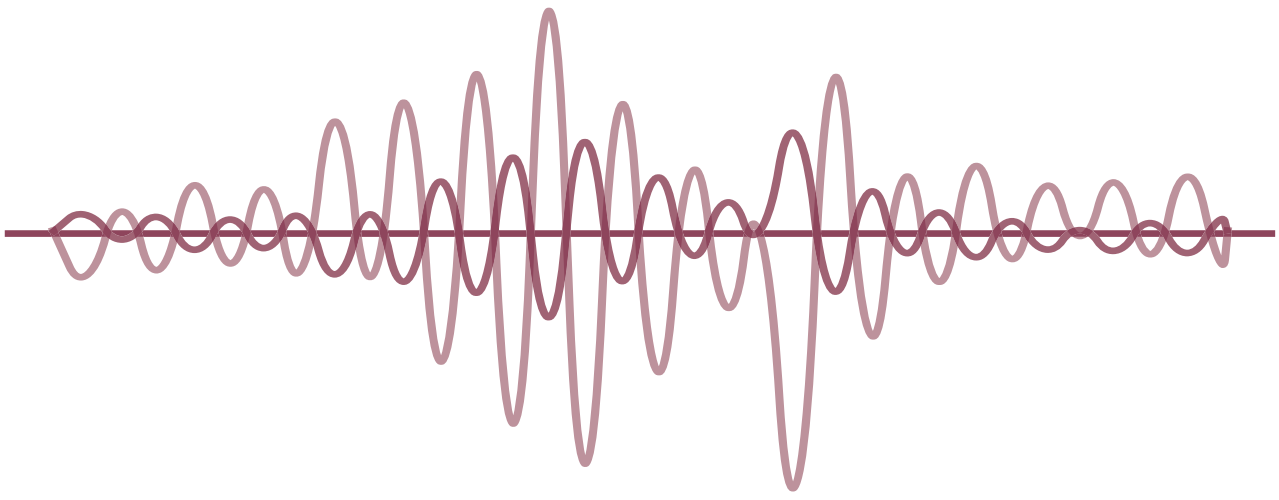
Recyclable.
Contains no plastizisers.

Constructive systems

A. Underlay (UL) Systems

RECOMMENDATIONS

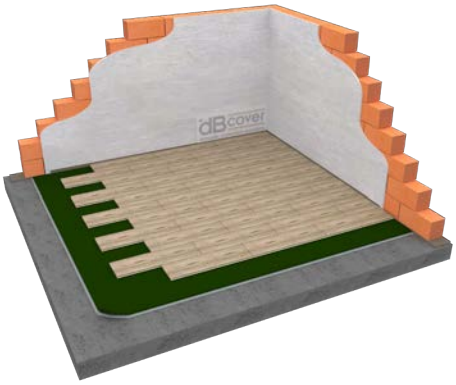
Name	Vinyl Plank	Laminate	Wooden floor	Carpet	Ceramic
Original 2.0	✖	✔	✔	✖	✖
Aluminium 2.0	✖	✔	✔	✖	✖
HD1.5 LVT F	✔	✔	✖	✖	✖
HD1.5 GRP	✔	✔	○	✖	✖
HD2.0	○	✔	✔	✖	✖
Silent 5.0	✖	✔	✔	✖	✖
CNT3.5	✖	○	○	✔	✖
CNT5.0	✖	✖	✖	✔	✖
Ceracoustic 3.0	✖	✖	✖	✖	✔

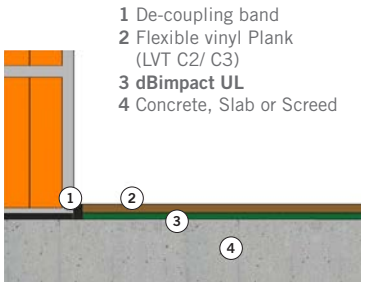


A.1 Flexible floating floors (UL)

LVT C2/ C3 System

Vinyl flooring on a flexible and/or self-adhesive core.

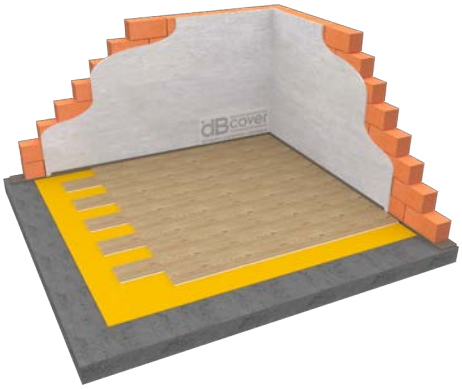


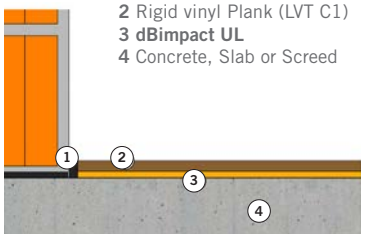


A.2 Rigid floating floors (UL)

LVT C1 System

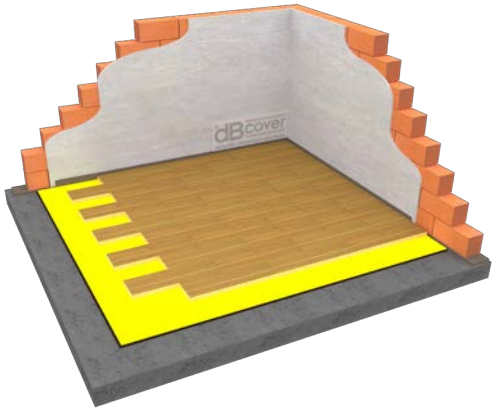
Vinyl flooring on rigid core with click.

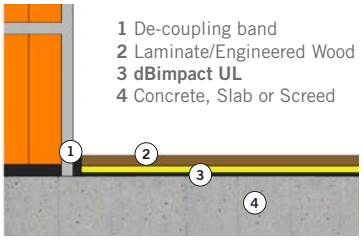




Wooden System

Laminate or floating platform with click Systems.

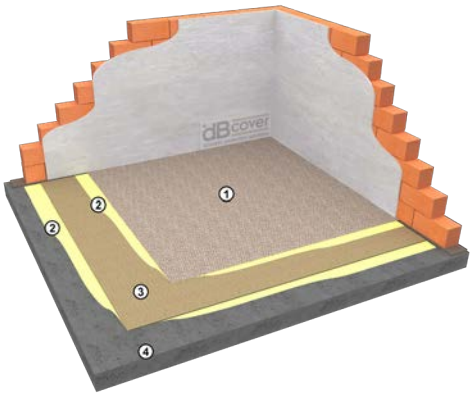


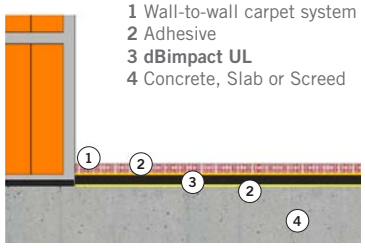


A.3 Glued-down Floors (UL)

Carpet system

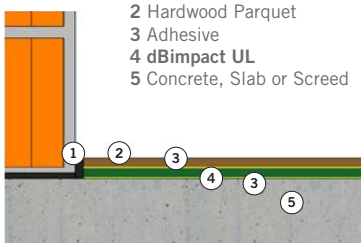
Glued-down carpet lining.





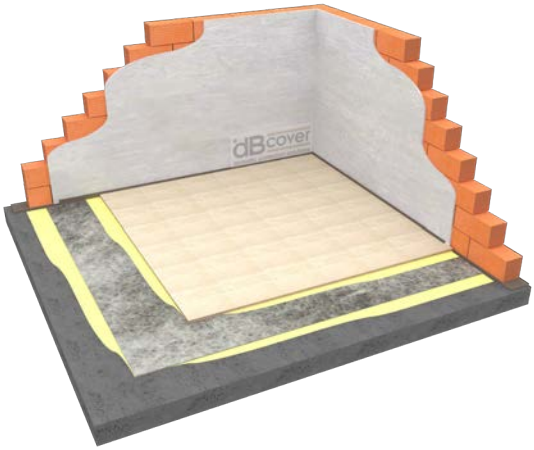
Hardwood System

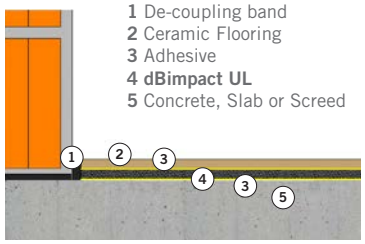
Single or double glued Hardwood.



Ceramic System

Ceramic flooring with cement adhesive.





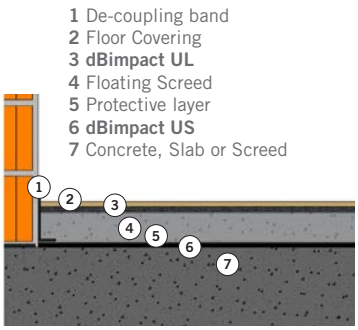
B. Underscreed System (US)

RECOMMENDATIONS

	Floors on Concrete floors	Floors on wooden structures	Floors on Forged with concrete joists	Sporting floors on stone base
ZC 4.0	○	✔	✔	○
ZC 6.0	✔	✔	✔	✔
ZC 8.0	✔	✔	✔	✔
ZC 10.0	✔	○	✔	✔

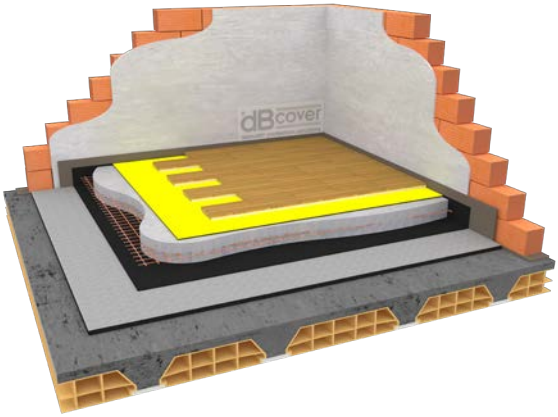
B.1 Slab (US)

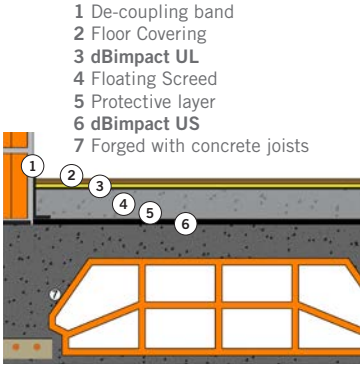
Floating floor system on reinforced concrete slab,



B.2 Forged with concrete joists/prefab hollow brick slab (US)

Floating floor system on unidirectional forged with concrete joists.

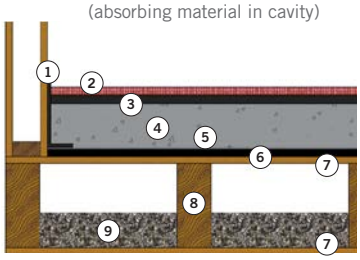




B.3 Forged/wooden structure (US)

Floating floor system on one-way timber forged with OSB wood board.

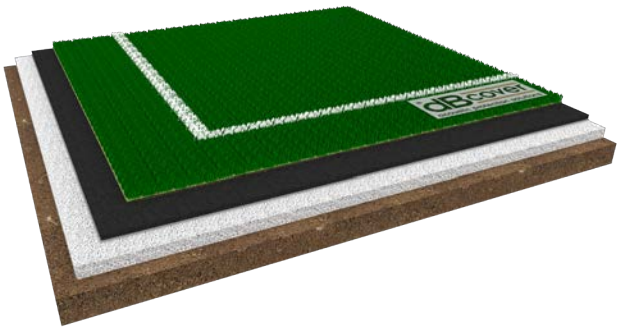
1 De-coupling band
2 Floor Covering
3 dBimpact UL
4 Floating Screed
5 Protective layer
6 dBimpact US
7 Wooden Plates/OSB
8 Wooden Beam
9 dBsonic SP
(absorbing material in cavity)



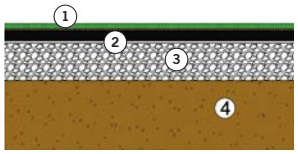
C. Outdoor systems (EU)

C.1 Sporting floors on stone-base (EU)

System of outdoor floor nailed on a compacted gravel base.



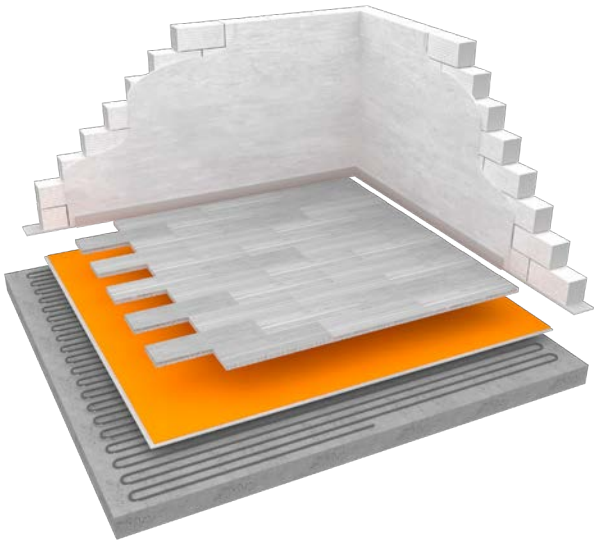
1 Artificial turf coating
2 dBimpact UE (Geotextile mesh included)
3 Leveling and draining Gravel/Sand
4 Compacted Ground/Soil



4/ Technical data sheets

dB impact
impact sound insulation

ALUMINIUM 2.0



dBimpact ALUMINIUM 2.0 is an elastic resilient underlay of latex manufactured using Airlift® technology with conductive additives. It provides great performance in the reduction of Impact Sound (IS), and a remarkable reduction in reflected Walking Sound (RWS).
It is a lightweight, easy to transport and install material. The reinforcement aluminum film acts as a vapor barrier, protecting the surface installation against moisture, improving stability dimension of the product and providing a more efficient transmission of heat.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
20 dB

RWS
Reflected Walking Sound
21%

ρ
Density
300 kg/m³

e
Thickness
2 mm

APPLICATIONS

Underlay

PACKAGING

1 m

15 m²/Roll
24 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✔	✔	✖	✖	✖

Type of installation

Glued down	Semi Floating	Floating
✖	✖	✔

Thermic System

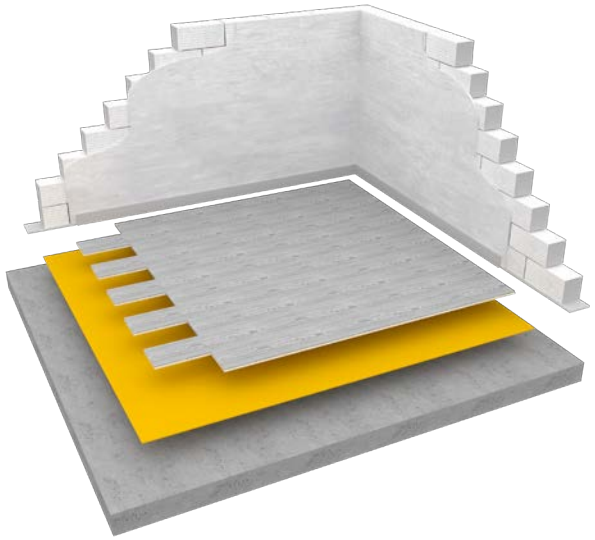
Floor Heating	Cooling system
✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,030 m²·K/W	ISO 12667
Thermal conductivity	λ	0,0640 W/(m·K)	ISO 12667
Leveling of areas	PC	1,28 mm	DIN 18202
Humidity protection	SD	●●●●	DIN EN ISO 12572
Compressive strength	CS	97,5 kPa	EN ISO 826
Impact Sound reduction	IS	20,0 dB	EN ISO 10140-3
Reflected Walking Sound	RWS	21%	EPLF NORM 021029-3
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	2,0 mm	EN ISO 845
Density	ρ	300 kg/m³	EN ISO 845

dB impact
impact sound insulation

ORIGINAL 2.0



dBimpact ORIGINAL 2.0 is an elastic resilient underlay of latex manufactured using Airlift® technology. It provides great performance in the reduction of Impact Sound (IS), and a remarkable reduction in reflected Walking Sound (RWS).
It is lightweight, easy to transport and install. The reinforcing polyethylene film acts as a vapor barrier, protecting the surface installation against moisture and improves product dimensional stability.

SPECIFICATIONS

IS (ΔL_w)	RWS	ρ	e
Impact Sound reduction	Reflected Walking Sound	Density	Thickness
20 dB	21%	300 kg/m³	2 mm

APPLICATIONS

Underlay

PACKAGING

1 m

15 m²/Roll
24 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✔	✔	✖	✖	✖

Type of installation

Glued down	Semi Floating	Floating
✖	✖	✔

Thermic System

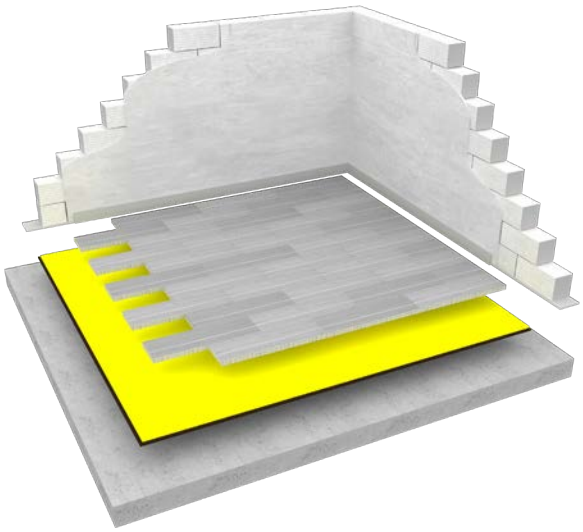
Floor Heating	Cooling system
○	○

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,045 m²·K/W	ISO 12667
Thermal conductivity	λ	0,0673 W/(m·K)	ISO 12667
Leveling of areas	PC	1,16 mm	DIN 18202
Humidity protection	SD	52 m	DIN EN ISO 12572
Compressive strength	CS	99 kPa	DIN EN ISO 826
Impact Sound reduction	IS	20,0 dB	EN ISO 10140-3
Reflected Walking Sound	RWS	21%	EPLF NORM 021029-3
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	2,0 mm	EN ISO 845
Density	ρ	300 kg/m³	EN ISO 845

dB impact
impact sound insulation

SILENT 5.0



dBimpact SILENT 5.0 is a an elastic resilient underlay of latex manufactured using Airlift® Standard and Viscoelastic technology. The discontinuity between layers and the largest loss factor in the viscoelastic layer, provide great performance in the reduction of Impact Sound (IS), and an outstanding reduction in Reflected Walking Sound (RWS).
It is a lightweight, easy to transport and install material.
The reinforced polyethylene film, acts as a vapour barrier, protecting the surface installation from moisture and improving the product dimensional stability.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
26 dB

RWS
Reflected Walking Sound
38%

ρ
Density
500
250
kg/m³

e
Thickness
5 mm

APPLICATIONS

Underlay

PACKAGING

1 m

6 m²/Roll
24 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✔	✔	✖	✖	✖

Type of installation

Glued down	Semi Floating	Floating
✖	✖	✔

Thermic System

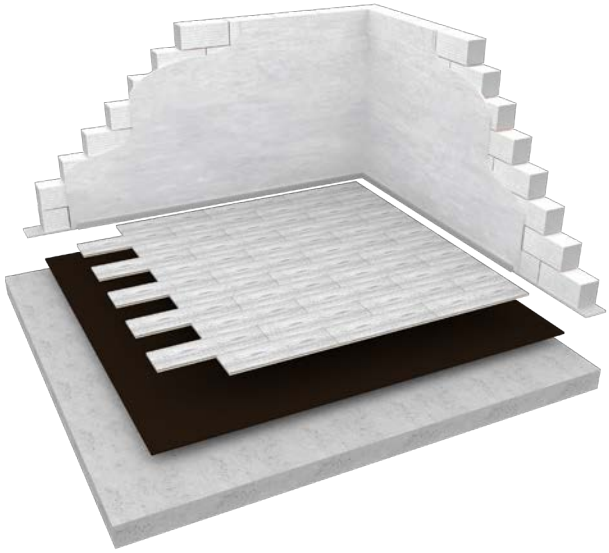
Floor Heating	Cooling system
○	○

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,0694 m²·K/W	ISO 12667
Thermal conductivity	λ	0,0710 W/(m·K)	ISO 12667
Leveling of areas	PC	3,4 mm	DIN 18202
Humidity protection	SD	52 m	DIN EN ISO 12572
Compressive strength	CS	58 kPa	DIN EN ISO 826
Impact Sound reduction	IS	26,0 dB	EN ISO 10140-3
Reflected Walking Sound	RWS	38%	EPLF NORM 021029-3
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	5,0 mm	EN ISO 845
Density	ρ	500/250 kg/m³	EN ISO 845

dB impact
impact sound insulation

HD 1.5 GRP



dBimpact HD 1.5 GRP is a resilient latex-mineral underlay with a non-slip grip coating. It combines great Compressive strength and an excellent acoustic performance for reflected Walking Sound (RWS). Its anti-slip coating prevents the floating installation from slipping.
Its low thickness and conductivity make it a highly thermally efficient material.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
18 dB

CS
Compressive strength
272 kPa

ρ
Density
200
950 **kg/m³**

e
Thickness
1,5 mm

APPLICATIONS

Underlay

PACKAGING

1 m

10 m²/Roll
40 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
○	✔	✔	✖	✖

Type of installation

Glued down	Semi Floating	Floating
✖	✖	✔

Thermic System

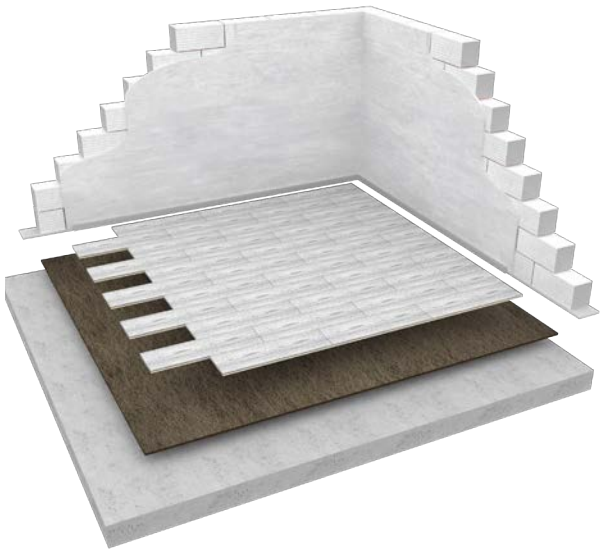
Floor Heating	Cooling system
✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,009 m²·K/W	ISO 12667
Thermal conductivity	λ	0,162 W/(m·K)	ISO 12667
Leveling of areas	PC	0,56 mm	DIN 18202
Humidity protection	SD	●●●●	EN 12086
Compressive strength	CS	272 kPa	EN ISO 826
Impact Sound reduction	IS	18,1 dB	EN ISO 10140-3
Reflected Walking Sound	RWS	●●●●	EPLF NORM 021029-3
Fire classification	FC	$B_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	1,5 mm	EN ISO 845
Density	ρ	200/950 kg/m³	EN ISO 845

dB impact
impact sound insulation

HD 1.5 LVT F



dBimpact HD 1.5 LVTF is a latex-and mineral-cushioned underlay. Its high density and its physical structure provide great Compressive strength and excellent acoustic performance on Reflected Walking Sound (RWS) reduction. Its low thickness and its conductivity make it a highly thermally efficient material. An ideal solution for floors with sensitive click System.

SPECIFICATIONS

IS (ΔL_w)	RWS	ρ	e
Impact Sound reduction	Reflected Walking Sound	Density	Thickness
18 dB	**38,1%**	**950 kg/m³**	**1,5 mm**

APPLICATIONS

Underlay

PACKAGING

1 m

10 m²/Roll
40 Rolle/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✖	○	✔	✖	✖

Type of installation

Glued down	Semi Floating	Floating
✖	✖	✔

Thermic System

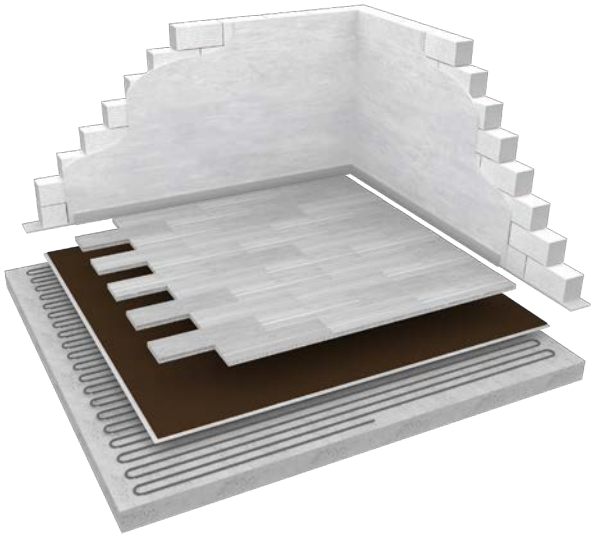
Floor Heating	Cooling system
✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,0091 m²·K/W	ISO 12667
Thermal conductivity	λ	0,167 W/(m·K)	ISO 12667
Leveling of areas	PC	0,39 mm	DIN 18202
Humidity protection	SD	52 m	DIN EN ISO 12572
Compressive strength	CS	1677 kPa	DIN EN ISO 826
Impact Sound reduction	IS	18,0 dB	EN ISO 10140-3
Reflected Walking Sound	RWS	38,1%	EPLF NORM 021029-3
Fire classification	FC	$B_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	1,5 mm	EN ISO 845
Density	ρ	950 kg/m³	EN ISO 845

dB impact
impact sound insulation

HD 2.0



dBimpact HD 2.0 is a resilient elastic and mineral-polymer underlay. It combines great Compressive strength and an excellent acoustic performance of Reflected Walking Sound (RWS) reduction. Its high thermal conductivity provides great thermal performance.
It is an extraordinarily versatile product, as it offers the best combination of acoustic, thermal and compression performance. Ideal for rigid floating floors.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
20 dB

RWS
Reflected Walking Sound
30 %

ρ
Density
850 kg/m³

e
Thickness
2 mm

APPLICATIONS

Underlay

PACKAGING

1 m

7 m²/Roll
40 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✔	✔	○	✖	✖

Type of installation

Glued down	Semi Floating	Floating
✖	✖	✔

Thermic System

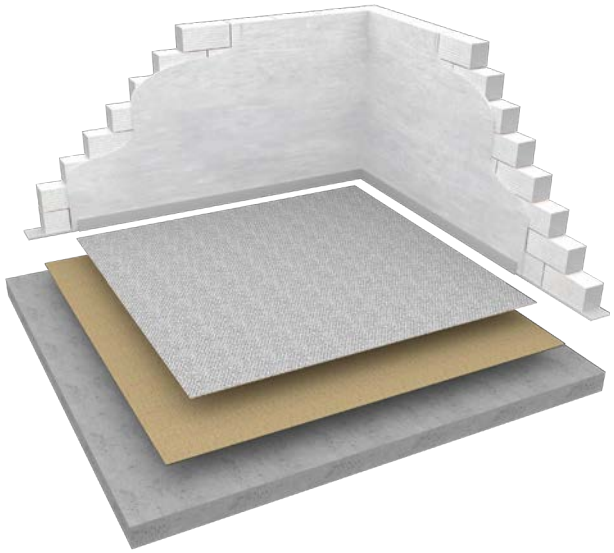
Floor Heating	Cooling system
✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,0311 m²·K/W	ISO 12667
Thermal conductivity	λ	0,06423 W/(m·K)	ISO 12667
Leveling of areas	PC	0,76 mm	CEN/TS 16354
Humidity protection	SD	80 m	DIN EN ISO 12572
Compressive strength	CS	1009 kPa	EN ISO 826
Impact Sound reduction	IS	20 dB	EN ISO 10140-3
Reflected Walking Sound	RWS	30 %	EPLF NORM 021029-3
Fire classification	FC	$B_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	2 mm	EN ISO 845
Density	ρ	850 kg/m³	EN ISO 845

dB impact
impact sound insulation

CNT 3.5



dBimpact CNT 3.5 is an elastic underlay with latex foam. Its open cell structure allows air circulation to improve maintenance and provide anti-allergenic and antimicrobial properties.
It has top layer with high tensile strength and durability for glued installations. It can be installed on radiant heating preventing the carpet from stretching or wrinkling.

SPECIFICATIONS

IIC	R	ρ	e
Impact Sound insulation	Compressive strength	Density	Thickness
61 dB	202 kPa	350 kg/m³	3,5 mm

APPLICATIONS

Underlay

PACKAGING

1,8 m

21 m²/Roll
16 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
o	o	✖	✖	✔

Type of installation

Glued down	Semi Floating	Floating
✔	✔	✔

Thermic System

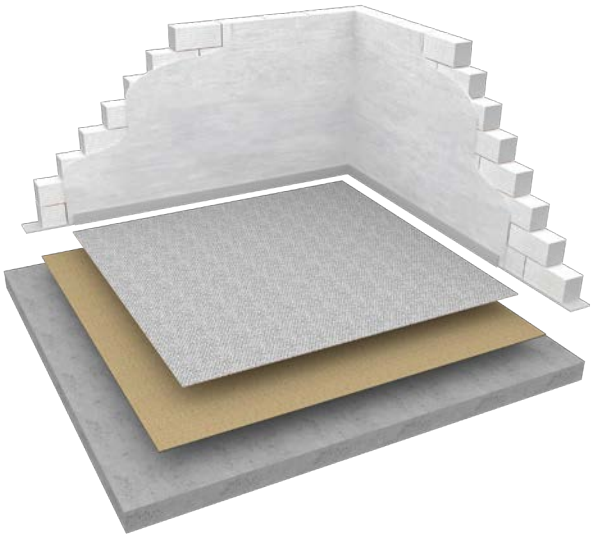
Floor Heating	Cooling system
✔	✔

✔ Most Suitable o Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,050 m²·K/W	EN ISO 12667
Thermal conductivity	λ	0,0757 W/(m·K)	ISO 12667
Compressive strength	CS	202 kPa	EN ISO 826
Impact Sound Reduction in lab	IIC	61,0 dB	ASTM E492
Impact Sound Reduction in situ	FIIC	61,0 dB	ASTM E1007
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	3,5 mm	EN ISO 845
Density	ρ	350 kg/m³	EN ISO 845

dB impact
impact sound insulation

CNT 5.0



dBimpact CNT 5.0 is a latex-based elastic Underlay. Its open cell structure allows air circulation to improve maintenance and provide anti-allergenic and antimicrobial properties.
It has a top layer with high tensile strength and durability for glued installations. Its resistance to compression and durability gives the feeling of comfort which remains for years as in its first day.

SPECIFICATIONS

FIIC	R	ρ	e
Impact Sound insulation	Compressive strength	Density	Thickness
62 dB	**21 kPa**	**350 kg/m³**	**5 mm**

APPLICATIONS

Underlay

PACKAGING

1,8 m

17 m²/Roll
16 Roll/Pallet

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✖	✖	✖	✖	✔

Type of installation

Glued down	Semi Floating	Floating
✔	✔	✔

Thermic System

Floor Heating	Cooling system
○	○

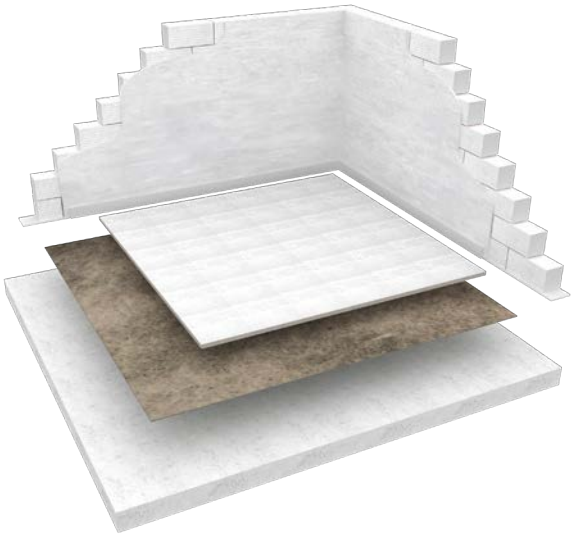
✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,0702 m²·K/W	EN ISO 12667
Thermal conductivity	λ	0,0732 W/(m·K)	ISO 12667
Compressive strength	CS	21 kPa	EN ISO 826
Impact Sound Reduction in situ	FIIC	62,0 dB	ASTM E1007
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	5,0 mm	EN ISO 845
Density	ρ	350 kg/m³	EN ISO 845

dB impact
impact sound insulation

CERACOUSTIC 3.0

dBimpact CERACOUSTIC 3.0 is anti-fracture membrane, made of a resilient elastic polymer with mineral underlay with double layer anti-breakage by traction. This solution allows the installation of the ceramic flooring to be detached to the concrete by achieving a remarkable reduction in impact noise. Its strong cohesion allows to resist the adhesion of the most demanding ceramic floor adhesives keeping its elastic properties.



SPECIFICATIONS

IS (ΔL_w)	PO	ρ	e
Impact Sound reduction	Pull-Out Test	Density	Thickness
14 dB	> 0,5 N/mm²	1300 kg/m³	3 mm

APPLICATIONS

Underlay

PACKAGING

Plates
1,2 m x 1,5 m = 1,8 m²
50 Plates/pallet = 90 m²

RECOMMENDATIONS

Types of Flooring

Wooden floor	Laminate	Vinyl planks	Ceramic	Carpet
✖	✖	✖	✔	✖

Type of installation

Glued down	Semi Floating	Floating
✔	✖	✖

Thermic System

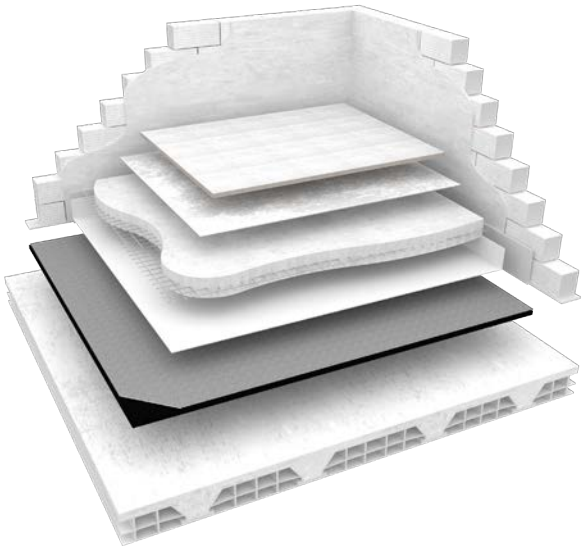
Floor Heating	Cooling system
✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Compressive strength	CS	1421 kPa	EN ISO 826
Impact Sound reduction	IS	14 dB	EN ISO 10140-3
Pull-Out Test	PO	> 0,5 N/mm²	DIN EN 12004
Fire classification	FC	$B_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	3,0 mm	EN ISO 845
Density	ρ	1300 kg/m³	EN ISO 845
Dynamic stiffness	S'	102,3 MN/m³	ISO 29052-1
Robinson-Type Floor Tester	-	9 cycles	ASTM C627

dB impact
impact sound insulation

ZC 4.0



dBimpact ZC 4.0 is an acoustic solution based on elastic granules produced with SBC²® technology. Its mechanical properties of low dynamic stiffness and high compression strength allow to perform with great efficiency in a wide range of loads of wet adn dry screed.
Its damping capability allows it to disconnect loads by obtaining insulation reductions to Impact Sound of up to 27 dB. The air between its particles provides better thermal insulation properties than the similar materials.

SPECIFICATIONS

IS (ΔL_w)	CS	ρ	e
Impact Sound reduction	Compressive strength	Density	Thickness
17 dB	**312 kPa**	**500 kg/m³**	**4 mm**

APPLICATIONS

Under Floating Screed

PACKAGING

1 m

6 m²/Roll
24 Roll/Pallet

RECOMMENDATIONS

Type of installation

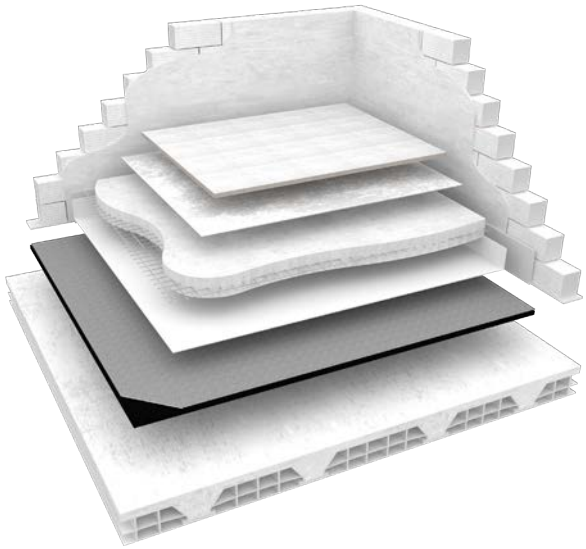
Floors on Concrete floors	Floors on wooden structures	Floors on Forged with concrete joists	Sporting floors on stone base
○	✔	✔	○

✔ Most Suitable ○ Suitable ✖ Not Suitable

CARACTERÍSTICAS		VALOR	NORMA
Thermal resistance	R	0,052 m²·K/W	EN ISO 12667
Thermal conductivity	λ	0,076 W/m·K	EN ISO 12667
Compressive strength	CS	312 kPa	EN ISO 826
Dynamic stiffness	s'	24,7 MN/m³	EN 29052
Impact sound reduction in Lab	ΔL_w	17 dB	EN ISO 12354-2 (75 kg/m²)
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	4,0 mm	EN ISO 845
Density	ρ	500 kg/m³	EN ISO 845

dB impact
impact sound insulation

ZC 6.0



dBimpact ZC 6.0 is an acoustic solution based on elastic granules produced with SBC²® technology. Its mechanical properties of low dynamic stiffness and high compression strength allow to perform with great efficiency in a wide range of loads of wet adn dry screed.
Its damping capability allows it to disconnect loads by obtaining insulation reductions to Impact Sound of up to 28 dB. The air between its particles provides better thermal insulation properties than the similar materials.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
20 dB

CS
Compressive strength
320 kPa

ρ
Density
500 kg/m³

e
Thickness
6 mm

APPLICATIONS

Under Floating Screed

PACKAGING

1 m

4 m²/Roll
24 Roll/Pallet

RECOMMENDATIONS

Type of installation

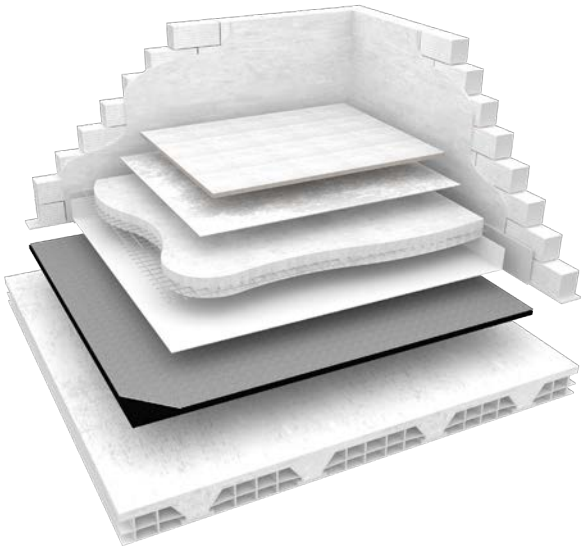
Floors on Concrete floors	Floors on wooden structures	Floors on Forged with concrete joists	Sporting floors on stone base
✔	✔	✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,079 m²·K/W	EN ISO 12667
Thermal conductivity	λ	0,076 W/m·K	EN ISO 12667
Compressive strength	CS	320 kPa	EN ISO 826
Dynamic stiffness	s'	23,2 MN/m³	EN 29052
Impact sound reduction in Lab	ΔL_w	20 dB	EN ISO 10140-3
Fire classification	FC	C_{fl-s1}	ISO 13501-1
Thickness	e	6,0 mm	EN ISO 845
Density	ρ	500 kg/m³	EN ISO 845

dB impact
impact sound insulation

ZC 8.0



dBimpact ZC 8.0 is an acoustic solution based on elastic granules produced with SBC²® technology. Its mechanical properties of low dynamic stiffness and high compression strength allow to perform with great efficiency in a wide range of loads of wet adn dry screed. Its damping capability allows it to disconnect loads by obtaining insulation reductions to Impact Sound of up to 29 dB. The air between its particles provides better thermal insulation properties than the similar materials.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
22 dB

CS
Compressive strength
330 kPa

ρ
Density
500 kg/m³

e
Thickness
8 mm

APPLICATIONS

Under Floating Screed

PACKAGING

1 m

5 m²/Roll
15 Roll/Pallet

RECOMMENDATIONS

Type of installation

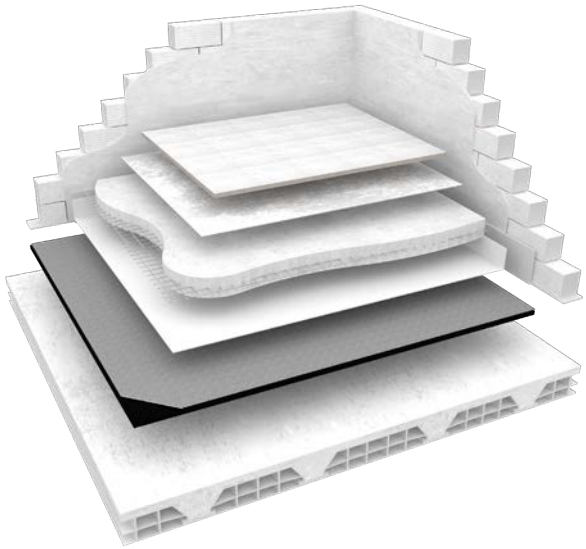
Floors on Concrete floors	Floors on wooden structures	Floors on Forged with concrete joists	Sporting floors on stone base
✔	✔	✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,0983 m²·K/W	EN ISO 12667
Thermal conductivity	λ	0,076 W/m·K	EN ISO 12667
Compressive strength	CS	320 kPa	EN ISO 826
Dynamic stiffness	s'	22,8 MN/m³	EN 29052
Impact sound reduction in Lab	ΔL_w	22 dB	ISO 12354-2 (75 kg/m²)
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	8,0 mm	EN ISO 845
Density	ρ	500 kg/m³	EN ISO 845

dB impact
impact sound insulation

ZC 10.0



dBimpact ZC 10.0 is an acoustic solution based on elastic granules produced with SBC²® technology. Its mechanical properties of low dynamic stiffness and high compression strength allow to perform with great efficiency in a wide range of loads of wet adn dry screed. Its damping capability allows it to disconnect loads by obtaining insulation reductions to Impact Sound of up to 30 dB.
The air between its particles provides better thermal insulation properties than the similar materials.

SPECIFICATIONS

IS (ΔL_w)
Impact Sound reduction
24 dB

CS
Compressive strength
340 kPa

ρ
Density
500 kg/m³

e
Thickness
10 mm

APPLICATIONS

Under Floating Screed

PACKAGING

1 m

4 m²/Roll
15 Roll/Pallet

RECOMMENDATIONS

Type of installation

Floors on Concrete floors	Floors on wooden structures	Floors on Forged with concrete joists	Sporting floors on stone base
✔	○	✔	✔

✔ Most Suitable ○ Suitable ✖ Not Suitable

CHARACTERISTICS		VALUE	NORM
Thermal resistance	R	0,132 m²·K/W	EN ISO 12667
Thermal conductivity	λ	0,076 W/m·K	EN ISO 12667
Compressive strength	CS	340 kPa	EN ISO 826
Dynamic stiffness	s'	21,9 MN/m³	EN 29052
Impact sound reduction in Lab	ΔL_w	24 dB	EN ISO 12354-2 (75 kg/m²)
Fire classification	FC	$C_{fl\text{-}s1}$	ISO 13501-1
Thickness	e	10,0 mm	EN ISO 845
Density	ρ	500 kg/m³	EN ISO 845

Installation Instructions

Underlay System (UL)

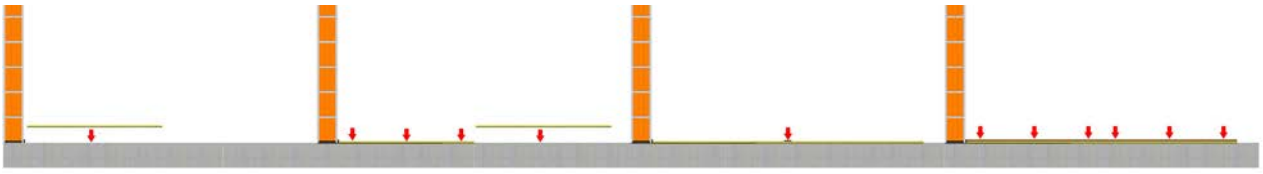
Before installing, ensure that the surface is clean, dry, and solid. For quick and easy installation, do the following:

1. Starting in a corner, extend the roll with the face of the moisture barrier downward, in contact with the concrete. Make sure that the flap is right on the wall.

2. Cut the roll with a cutter or other cutting tool.

3. Place the next piece of dBimpact UL on the overlap and link the two pieces with adhesive tape. Make sure the pieces of dBimpact UL are attached Proceed in the same way until the entire surface is covered.

4. Place the floor directly above the dBimpact surface by following the manufacturer's instructions.



Underscreed System (US)

Before installing, ensure that the surface is clean, dry, and solid.

1. Verify the flatness and regularity of the surface of the concrete. The thickness of the floating screed will depend on it.

2. Disconnect the structural and perimeter joints with de-coupling bands.

3. Extend the roll with the textile side facing upwards and the part of the elastomer in contact with the concrete starting from a corner. Make sure that the edge of the roll is right on the wall.

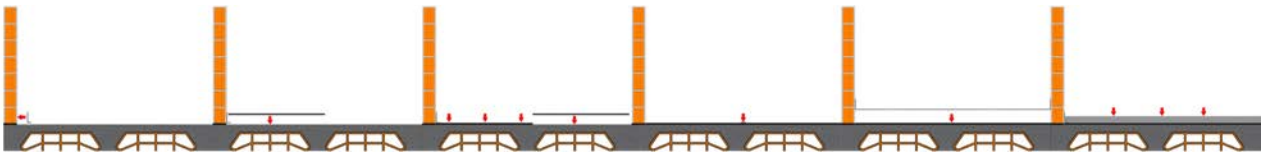
4. Cut the roll with a cutter or other cutting tool.

5. Place the next piece of dBimpact US on the overlap and attach the two pieces with adhesive tape. Make sure the two pieces of dBimpact US are attached to.

6. Proceed in the same way until the entire surface is covered.

7. Place the plastic over the dBimpact by sealing the joints and ensuring there is no leak.

8. Apply the floating screed layer onto the plastic to the desired thickness.



Outdoor floor systems over sub-ground (UE)

Before installing, ensure the surface is firm and level.

1. Apply layer of Leveling and draining Gravel/Sand.

2. Verify the flatness and regularity of the surface of the Gravel/Sand Layer.

3. Extend the roll with the geotextile mesh downwards and the elastomer part upward. Make sure the edge of the roll is right on the edge of the surface.

4. Cut the roll with a cutter or with another cutting tool.

5. Place the next section of dBimpact UE ensuring there are no gaps between the sections.

6. Proceed in the same way until the surface is fully covered.

7. Place the artificial turf over the dBimpact UE by stapling the ends and ensuring that there is no gap between the pieces.

8. Place elastic maintenance elements on the surface if necessary.

Outdoor floor systems over concrete / ceramic (UE)

Before installing, ensure the surface is firm and level.

1. Verify the flatness and regularity of the surface of the Gravel/Sand Layer.

2. Clean and dry the surface.

3. Extend the roll with the geotextile mesh downwards and the elastomer part upward. Make sure the edge of the roll is right on the edge of the surface.

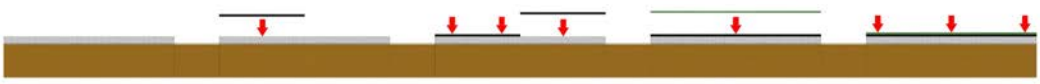
4. Cut the roll with a cutter or with another cutting tool.

5. Place the next section of dBimpact UE ensuring there are no gaps between the sections.

6. Proceed in the same way until the surface is fully covered.

7. Place the artificial turf over the dBimpact UE by stapling the ends and ensuring that there is no gap between the pieces.

8. Place elastic maintenance elements on the surface if necessary.




dB
impact
impact sound insulation

dBcover

acoustic protection solutions

dB impact

impact sound insulation

dB sonic

airborne sound insulation

dB comfort

sound absorption

dB balance

vibration insulation