EDILTECO®
group

DBRED

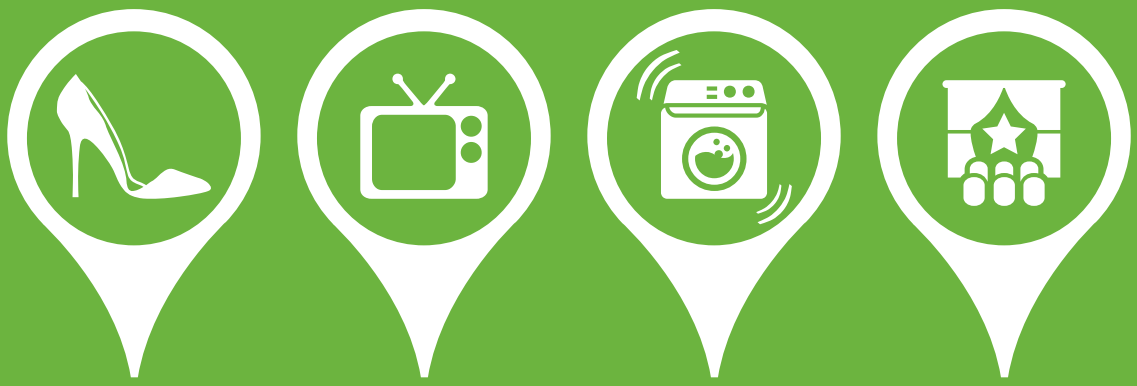
Noise Reduction Division

general **building** catalogue

Living
comfort
since 1981

Our
contribution
to
quality

PROFESSIONAL ACOUSTIC INSULATION AND ABSORPTION



Acoustic comfort?

HOW TO **IDENTIFY AND SOLVE** THE FOUR MAIN PROBLEMS

EDILTECO GROUP is the ideal partner to meet every need of the new and renovation construction. Besides ensuring high quality products, Edilteco offers a complete, fast and effective collaboration and support to all its partners and customers, through the synergy of its various divisions.

DBRED NOISE REDUCTION is the brand by which Edilteco Group deals with **acoustic insulation**. A correct acoustic design should combine the use of the most suitable products according to the environment typology and the relative acoustic problem. In order to improve the approach of the acoustic problems in building, dBred makes available to companies and design studios, its trained, competent and highly qualified staff, able to provide the compliance to the requirements of all types of buildings, thanks to high quality materials.

The dBred Division includes a wide range of mats, boards, soundproofing panels, rot-proof over time, odorless, impervious to mould and microorganisms, non-polluting, recyclable, and resistant to pressure and cement alkali.

DBRED

Noise Reduction Division

DESIGN

Free assistance service for the design of acoustic insulation systems aimed at developing the best solution according to the construction requirements. **The communication with our *Technical Department* is quick and efficient thanks to a series of digital forms for the dimensioning.** *Please contact the dBred Technical Department.*

TRAINING

A technical training will be addressed to companies, professionals, dealers and retailers concerning the topic of acoustic insulation and the correct application of materials.

ACOUSTIC TESTS

Thanks to skilled technicians, who are competent in Environmental Acoustics, in accordance with Current Legislation 447/95 on the national territory, we are able to test acoustically the passive acoustic requirements of buildings, according to D.P.C.M. 5/12/97.

ASSISTANCE

Technical assistance for free inspection on site, acoustic fact-finding and experimental surveys, training of the application staff and monitoring of all the application stages on site.

PRODUCTS DEVELOPMENT

Development of acoustic materials and systems, certified on specific customer's demand.

dBred Technical Department

CONSULTATION, DESIGN, ASSISTANCE ON SITE AND TESTS.

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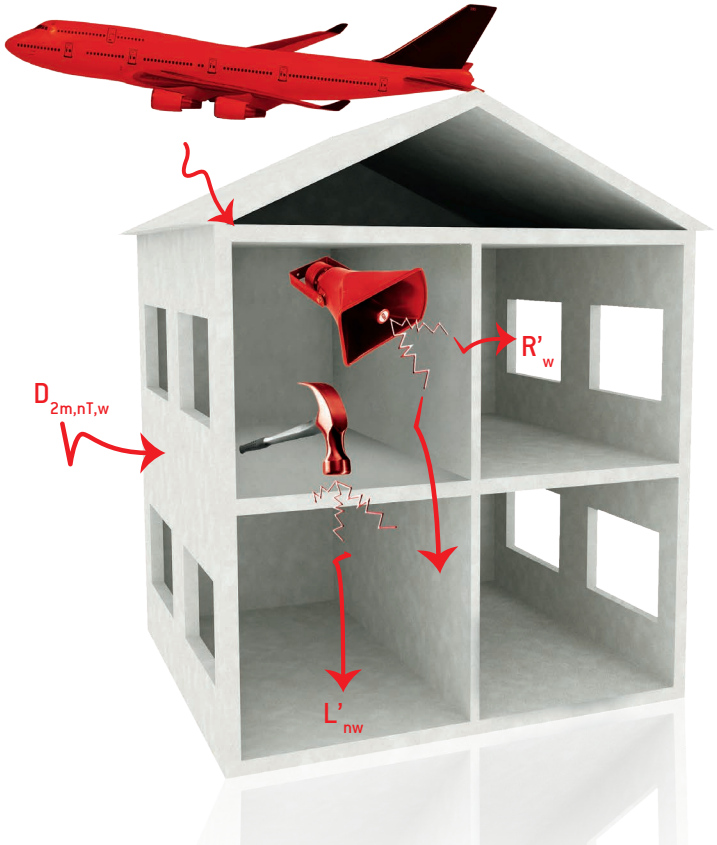
CURRENT LEGISLATION
for acoustic insulation

In the design phase of the building, it is compulsory an accurate preliminary study on the acoustic conditions of the building, according to the results expected by users. In many countries of the world, there are specific national regulations with specific requirements regarding sound insulation in building. These regulations often impose the values that have to be respected for the passive acoustic requirements of the buildings for every single element of the structure. These requirements concern the behavior of the building towards the sounds coming from the external world, or from adjacent houses (sound insulating power of the vertical/horizontal partitions and façade's acoustic insulation) and in some cases they also concern the acoustic aspects for direct noise transmission among the different rooms of the same residential unit (impact sound level and maximum levels of installations noises).



R'_w

Airborne from other residential units.
Apparent level of impact sound insulation.

L'_{nw}

Impact sound level.

$D_{2m,nT,w}$

Airborne from outside.
Acoustic insulation of façades.

LASmax - LAeq

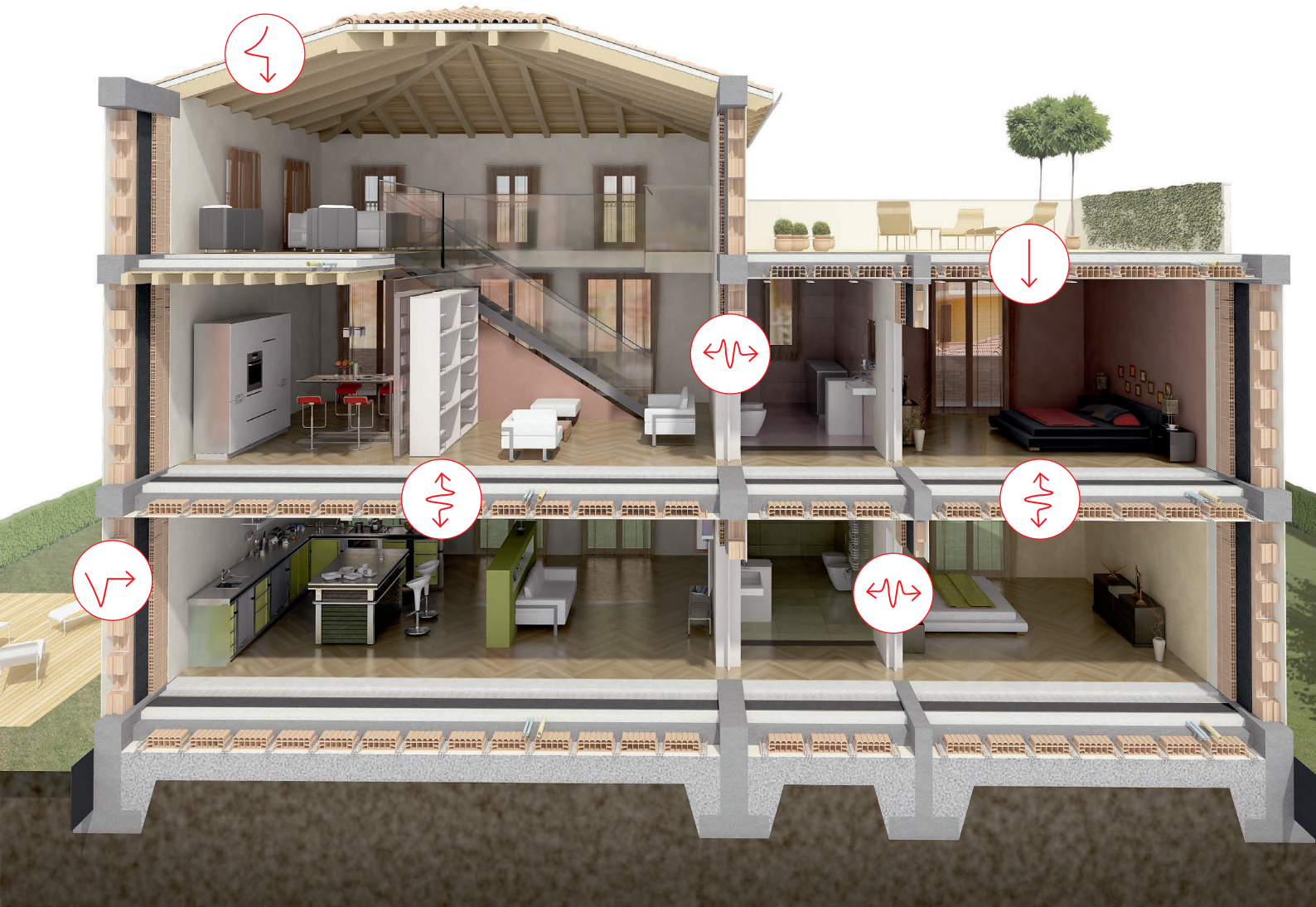
Noises coming from installations.
Maximum level of installation noises.

CLASSIFICATION OF LIVING AREAS
AND PASSIVE ACOUSTIC REQUIREMENTS OF BUILDINGS

The acoustic performances of the buildings are often subjected to many international technical regulations. These regulations provide the parameters for every typology of noise insulation and the way they have to be measured on site or during the design phase.

As follows we report the main standards for measuring the technical characteristics of the building and the most common levels to verify its performances.

TYPE	UNITS	STANDARDS	LEVEL
Airborne sound insulation from outside	dB	ISO 140-5	D_{nw} - $D_{nT,w}$ - $D_{2m,nT,w}$
Airborne sound insulation from adjacent units	dB	ISO 140-4	R'_w - D_{nw} - $D_{nT,w}$
Impact sound insulation from other units	dB	ISO 140-7	$L'_{nT,w}$ - L'_{nw}



dBred Division ... what is it?

Edilteco develops systems and solutions for an attentive acoustic insulation of buildings.
To do that, it is necessary to use high technological materials, like SBR rubber obtained by the selection of granules and recycled rubber fibers, through a production process. This guarantees the homogeneity of the product and its constant level of performance. Edilteco offers to its customers technological advanced products with certified declared acoustic performances.

DBRED
systems and solutions
for an attentive
acoustic insulation and absorption.

DBRED MATERIALS
what they are and how they are produced

Edilteco Group established a partnership with the main world producer of recycled rubber materials, which is on the global market from over 50 years, in order to develop its acoustic activity. It realizes a range of specific products for acoustic insulation which is distinguished for its performance and careful selection of the raw materials. The cleaning and selection of the raw materials (SBR rubber granules and fibers) are the basis of dBred products, because the presence of the rubber only allows a correct industrial control of the final product specific weight. Consequently, the certainty and constancy of the performances. To achieve a high quality layer of rubber it is necessary to quantify and qualify the various processes that obtain a finished mat from a tyre. The first essential step concerns the supply of SBR rubber granules and fibers (Baffin) that must be selected, cleaned, washed and separated by type, particle size and physical characteristics. This first operation, which requires time and expertise, is essential to ensure an optimal base for the final product.

LIFE CYCLE FROM THE RECYCLED TYRE

... after having chopped it into granules and/or fiber, the tyre passes through sieve and magnet to eliminate all the elements extraneous to the rubber (canvas, metal parts, etc.) and finally it is washed.

SELECTION OF AGGREGATES
according to the type of material you want to obtain

After the cleaning of the aggregate, the preparation of the mixture becomes essential. It is based on the selection of the aggregates according to the type of material you want to obtain (the granule only, granule and fiber, the fiber only); mixing the aggregates with a special MDI polyurethane resin, you will obtain a mixture which will be compacted and cured in special molds and then moved to the phase of cold peeling. All dBred rubber products are made starting from the concept of "peeling" from the raw material. It is therefore important to underline that, increasing the material density, you will have production benefits related to the speed of production and to the less selection of material; however you will get products with worst physical/mechanical characteristics that can be used only for permanent heavy loads to ensure the correct functioning.

FILLER

BAFFIN

GRANULE

the topic of **sustainability** in construction

EDILT**ECO** and the environment

In order to focus the objectives and standards on the sustainable construction, it is important above all to define the term **sustainability.** Sustainability means *"the mankind's ability to respond to the current needs without compromising the aptitude of future generations to meet their own needs".*
The sustainable development of construction considers not only the buildings themselves, but also the individual and collective infrastructures, as well as the single products, the functional components, the services and processes related to their life cycle.

In an international market increasingly **"green"**, it became necessary to make the sustainability concept more concrete, creating several and different sustainable evaluation and certification systems in the world.

In the world, the current legislation for the assessment of sustainable building is rather fragmentized. Of course, the **LEED** protocol (The leadership in Energy and Environmental Design) is the most common on the international private market.

Each protocol has its specificity, content and application modality with affinities and common points. This protocol bases on a scoring system with a list of requirements to which is assigned a judgement: the global scoring defines the environmental sustainability of the building.

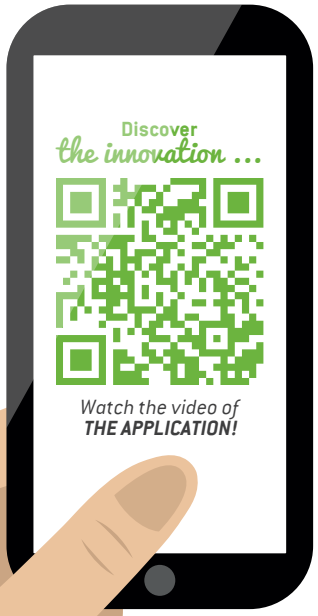
Thanks to the characteristics related to the recycled material and to the low energy impact, dBred range contributes to obtain a high score according to the modalities expressed by LEED protocol.

LEED		
SECTIONS	**CREDITS**	**TECHNICAL DESCRIPTION**
Energy and atmosphere (EA)	Prerequisite 2	Minimum energetic performances.
	Credit 1	Optimization of the technical performances.
Materials and resources (MR)	Credit 4	Recycled content.
	Credit 5	Extracted, processed and produced materials at a limited distance (regional materials).

gumgum spray

THE BIRTH OF **GLOBAL ACOUSTIC INSULATION** OF IMPACT SOUND, AIRBORNE AND DRAIN NOISES...

A REAL
INNOVATION,
GUM GUM SPRAY CAN BE DIRECTLY SPRAYED ON SITE!



Supplied in bags of 24 kg
to be mixed with B Part (liquid additive),
for manual and mechanical application.

GUM GUM SPRAY

IMPACT SOUND INSULATION LAYER COMPOSED OF PREMIXED RUBBER GRANULES, TO BE DIRECTLY SPRAYED ON SITE

Impact sound insulation layer to be realized directly on site, composed of premixed SBR rubber granules with controlled grain size in curve, with special selected and pre-batched water binders and supplied in bags. To be mixed with liquid additive (B Part), for mechanical or manual application.

APPLICATIONS

- Resilient layer for the reduction of impact noises in the floating screed. In fact, it is particularly suitable for the realization of low thickness floating base screeds, also with installations without levelling layer.
- Reduction of impact noises on stairs.
- Sound insulation layer to be applied in cavity wall of double brick partition walls and panels on cement-brick walls.
- Realization of separation layers under wall or for covering the acoustic bridges, like concrete pillars and beams.
- Sound insulation treatment of cavaedium for the passage of installations, single discharge pipes in PVC or similar material.

MAIN APPLICATION FIELDS

Acoustic insulation of your house

Impact sound insulation

Airborne sound insulation

Noise insulation of **drains and pipes**

GUM GUM SPRAY
Impact sound insulation layer composed of premixed rubber granules

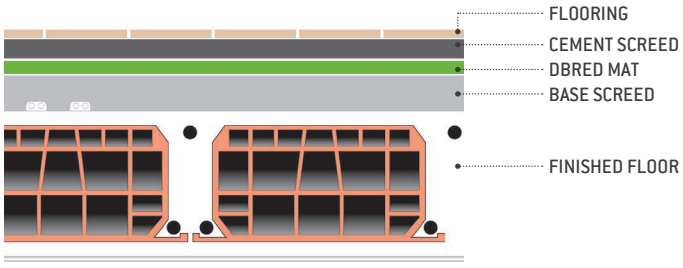
TECHNICAL CHARACTERISTICS	GUM GUM SPRAY	
Walkability	approx. 24/36 hours, 6 mm of thickness (according with the weather conditions and the absorption of the anchoring surface)	
Composition	SBR rubber and binders	
Colour	black	
Density kg/m^3	415	
Applicable thickness mm	from 6 to 10	
Dynamic stiffness s'$_t$ MN/m^3 (UNI EN 29052-1)	20	
Compression c mm (UNI EN 12431)	0,6	
Environmental temperature for the application	5 °C ÷ 30 °C	
Creep (UNI EN 1606)	X$_{ct}$ (mm) * / **	Applied load (kPa)
	0.31 0.47 0.89	1.6 2.0 2.4

** Value obtained on thickness 6 mm / ** Calculated value with forecast to 7.4 years*

IMPACT SOUND INSULATION

Intervening acoustically on the floor slabs of houses, offices or buildings with other intended uses is fundamental in order to avoid the transmission of impact noises which are propagated by solid way through the building's structures. The people's trample, the accidental falling of objects or the vibrations of any eventual appliance on the floor, generate noise in the neighboring areas and particularly in those below.
It is therefore necessary to define the most suitable acoustic systems in order to obtain the expected insulation in accordance with the project or at least that required for compliance with the values provided by the current legislation.

THE MOST EFFECTIVE SOLUTION FOR THE REDUCTION OF IMPACT NOISES ON FLOORS IS TO REALIZE THE FLOATING SCREED SYSTEM.



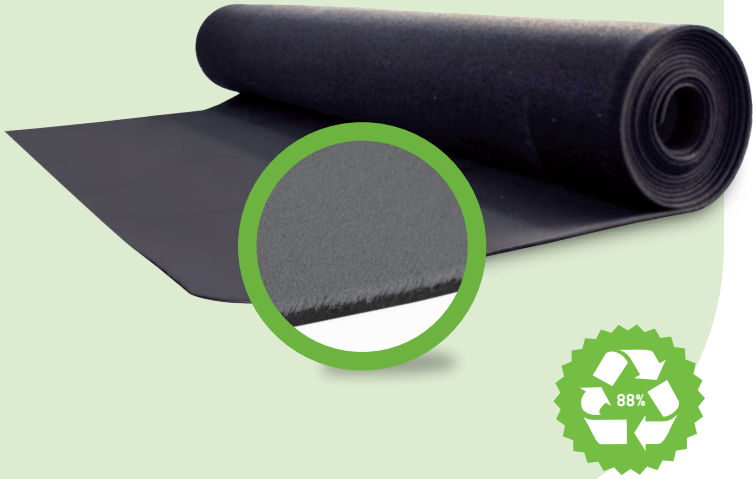
A **floating screed** system is a floating screed applied to an impact sound insulation mat, completely separated from attic and vertical partitions. Therefore it will be a system free to vibrate.

The efficacy and the correct functioning of an impact sound insulation floating screed system depends on two fundamental factors: the first one is the correct design for the choice of the suitable material and the second one is the correct application of the system. For the last one it is necessary the absence of connections with the walls, the doorstep and French doors. It is necessary to verify the continuity of the installation of the impact mat and the perimeter stripes (detachment from the walls) of the coating and skirting board (see the section dedicated to the product installation).

DBRED DUETTO

THERMO-COUPLED MAT FOR ACOUSTIC INSULATION - SBR/MDI RUBBER + CROSS-LINKED POLYETHYLENE

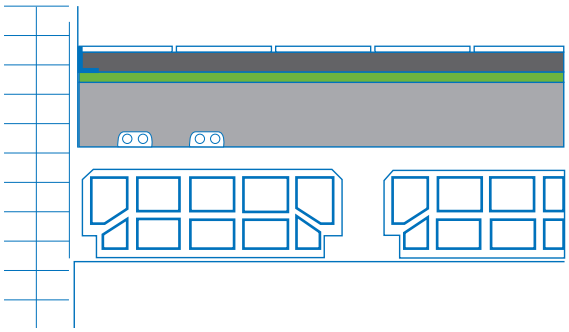
Mat in rolls, composed of granules and selected SBR rubber bound with polyurethane resins (MDI), thermo-coupled in a continuous way to cross-linked polyethylene. The peculiarity of this material is that it incorporates the advantages of the SBR rubber, as elasticity and durability, with those of the polyethylene, as the adhesive gripping and waterproofing properties of SBR rubber. Therefore the product does not require an additional application of a waterproofing layer before the screed realization thanks to the presence of polyethylene. The joints can be easily sealed with the adhesive tapes of dBred range.

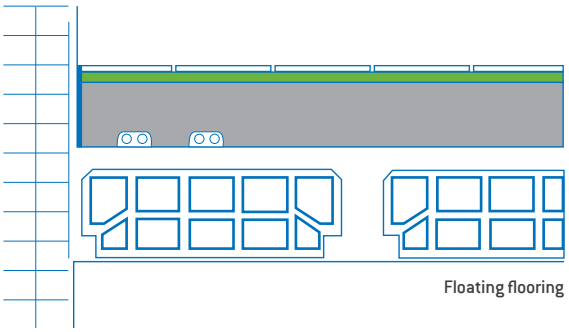


APPLICATION FIELDS

Impact sound insulation on floors with floating screed system (according to UNI 11516) or as resilient under floating dry floorings.

MAIN APPLICATION FIELDS





DBRED
Noise Reduction Division

DBRED DUETTO Thermo-coupled mat for acoustic insulation - SBR/MDI rubber + Cross-linked polyethylene		
TECHNICAL CHARACTERISTICS	**DBRED DUETTO F3+3**	**DBRED DUETTO F5+4**
Total thickness mm	6	9
Rubber thickness mm	3	5
Rubber density kg/m^3	~ 710	~ 550
Polyethylene thickness mm	3	4
Polyethylene density kg/m^3	~ 31	
Dynamic stiffness s'$_t$ MN/m^3 (UNI EN 29052-1)	53	35
Impact sound insulation ΔL_w (UNI EN ISO 140-7/8 *)	29 dB	38 dB
Roll dimensions cm	150 x 700	120 x 1500
Nr. rolls per pallet	15	6

** corresponding to the current UNI EN ISO 16283-2 and UNI EN ISO 10140-3*

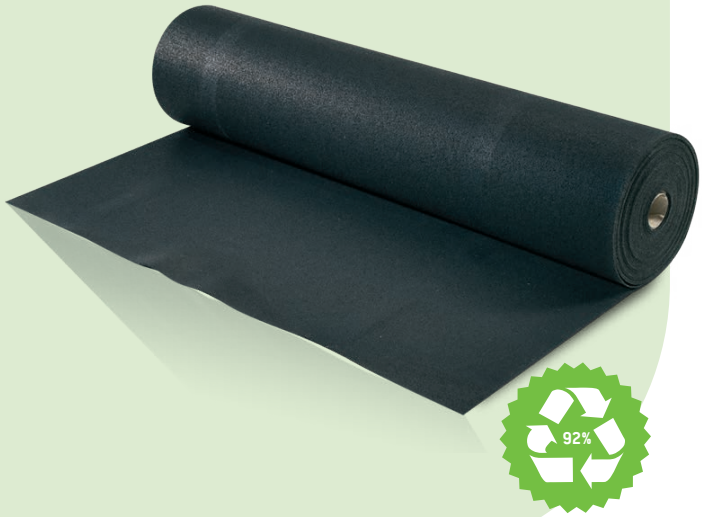
DBRED F

ELASTIC MAT FOR IMPACT SOUND INSULATION - SBR/MDI PEELED RUBBER - ROLLS

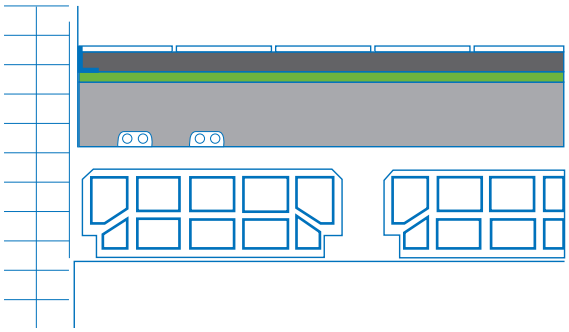
Mat in rolls composed of granules of selected SBR rubber bound with polyurethane resins (MDI) with a density up to 550 kg/m³. The material has an optimal elasticity and mechanical resistance assuring long life and constant acoustic performances.

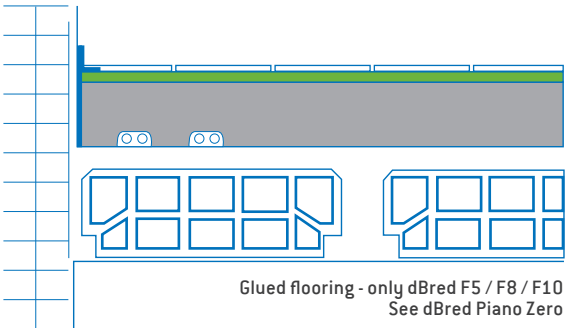
APPLICATION FIELDS

Impact sound insulation on slabs with floating screed system or dBred Piano Zero system with direct application of the resilient material under ceramic or wooden floorings. It can also be used as protective resilient layer between smooth surfaces or visible surfaces.



MAIN APPLICATION FIELDS





Glued flooring - only dBred F5 / F8 / F10
See dBred Piano Zero

DBRED
Noise Reduction Division

DBRED F
Elastic mat for impact sound insulation - SBR/MDI peeled rubber - Rolls

TECHNICAL CHARACTERISTICS	DBRED F3-7210 *	DBRED F5-6010	DBRED F8-6010 *	DBRED F10-6010 *
Thickness mm	3	5	8	10
Density kg/m³	~ 710	~ 550		
Dynamic stiffness s'_t MN/m³ (UNI EN 29052-1)	78	54	39	37
Impact sound insulation ΔL_w (UNI EN ISO 140-7/8 **)	26 dB	31 dB	-	-
Roll dimensions cm	120 x 1800	120 x 1500	120 x 900	120 x 750
Nr. rolls per pallet	9			

* Availability on demand. Contact Edilteco Sales Department to know the delivery time.

*** corresponding to the current UNI EN ISO 16283-2 and UNI EN ISO 10140-3*

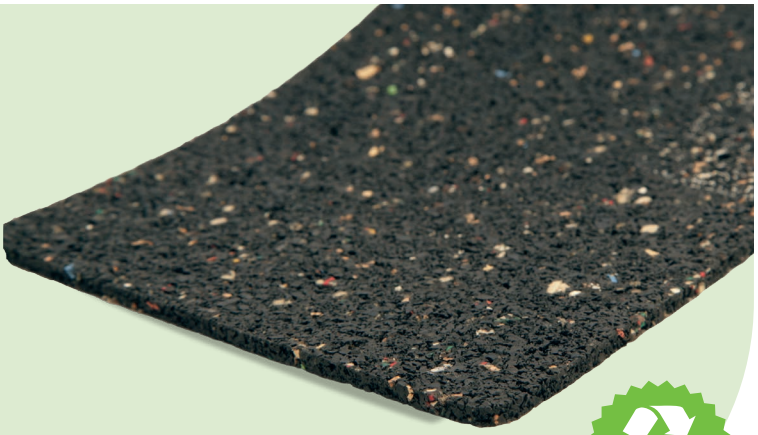
DBRED F-C

ELASTIC MAT FOR IMPACT SOUND INSULATION - COLORED - SBR/MDI RUBBER+PEELED PUR - PANELS

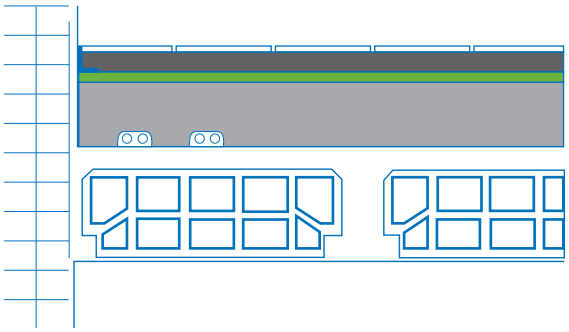
Mat in sheets composed of granules and selected SBR rubber bound with polyurethane resins (MDI) with a density of 720 kg/m³. The material has optimal elasticity and mechanical resistance assuring long life and constant acoustic performances.

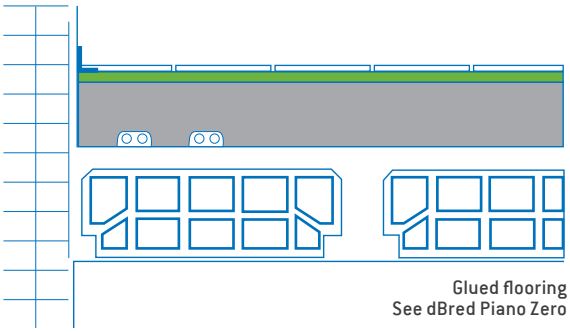
APPLICATION FIELDS

Impact sound insulation on slabs with floating screed system or dBred Piano Zero system with direct application of the resilient material under ceramic or wooden floorings. It can also be used as protective resilient layer between smooth surfaces or visible surfaces.



MAIN APPLICATION FIELDS





Glued flooring
See dBred Piano Zero

DBRED
Noise Reduction Division

DBRED F-C
Elastic mat for impact sound insulation - Colored - SBR/MDI rubber+peeled PUR - Panels

TECHNICAL CHARACTERISTICS	DBRED F5-C *	DBRED F8-C *
Thickness mm	5	8
Density kg/m³	~ 720	
Dynamic stiffness s'_t MN/m³ (UNI EN 29052-1)	73	62
Impact sound insulation ΔL_w (UNI EN 12354-2)	20 dB	21 dB
Panel dimensions cm	230 x 115	
Nr. panels per pallet	94	58

* Availability on demand. Contact Edilteco Sales Department to know the delivery time.

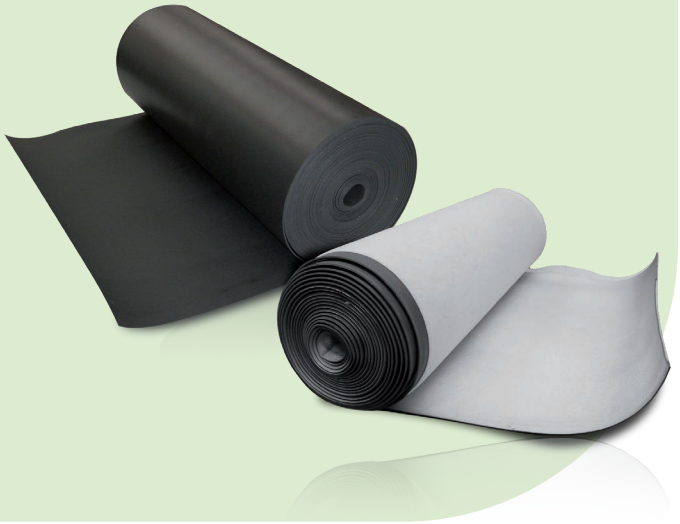
DBRED FONOTECH

ELASTIC MAT FOR IMPACT SOUND INSULATION - ROLLS

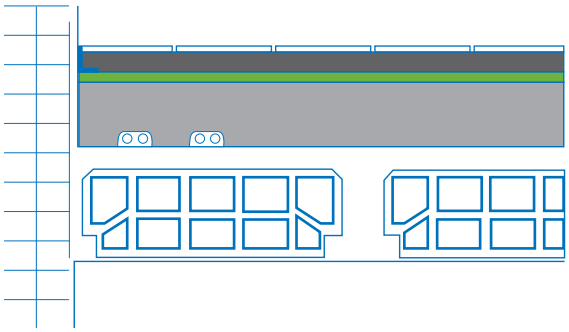
Mat in rolls of cross-linked polyethylene with density of 30 kg/m³. This material has an optimal elasticity and practicality of use. The 5.6 PLUS version is composed of cross-linked polyethylene with a thickness of 5 mm bound with polyester fiber. It is also available in the version with reflective aluminated film with overlaps in order to facilitate the application.

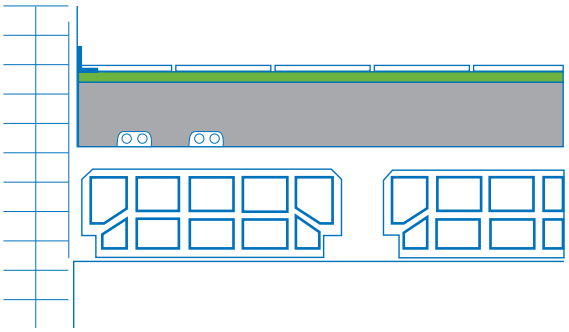
APPLICATION FIELDS

Impact sound reduction on floors thanks to the floating base screed system (according to UNI 11516).



MAIN APPLICATION FIELDS





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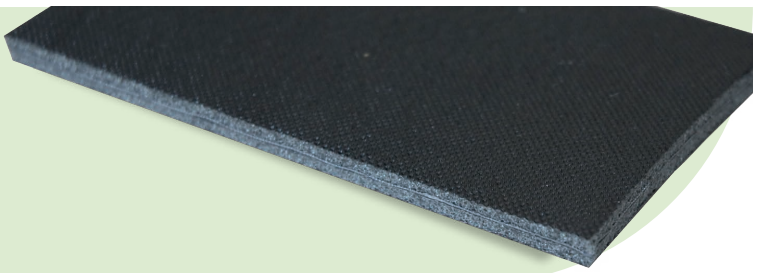
DBRED FONOTECH
Elastic mat for impact sound insulation - Rolls

TECHNICAL CHARACTERISTICS	DBRED FONOTECH 5	DBRED FONOTECH PLUS 3.6 WITH OVERLAPS	DBRED FONOTECH PLUS 5.6 WITH OVERLAPS	DBRED FONOTECH 5.6 ANTISCRATCH
Thickness mm	5	9	11	11
Density kg/m³	~ 30	~ 30 *		
Dynamic stiffness s'_t MN/m³ (UNI EN 29052-1)	52	13	11	11
Impact sound insulation ΔL_w (UNI EN ISO 140-7/8 **)	33 dB	34 dB ***	36 dB	36 dB
Roll dimensions cm	150 x 5000			150 x 2500 150 x 5000

** value recognized on expanded polyethylene / ** corresponding to the current UNI EN ISO 16283-2 and UNI EN ISO 10140-3 / *** calculated according to UNI EN ISO 12354-2 with load 155 kg/m²*

DBRED FONOTECH P

SOUNDPROOFING MAT FOR THE ACOUSTIC INSULATION OF PARTITION WALLS AND TECHNOLOGICAL INSTALLATIONS



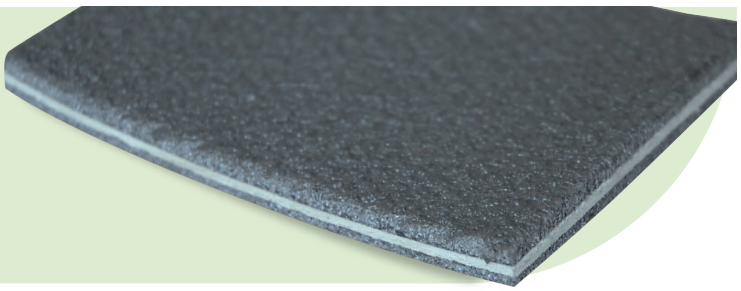
Lead foil of 0,35 mm coupled on both sides with cross-linked polyethylene of 3 mm thickness.

APPLICATION FIELDS

Increase of the soundproofing power of slabs, walls and technological installations.

DBRED FONOTECH ECO P

SOUNDPROOFING MAT FOR THE ACOUSTIC INSULATION OF PARTITION WALLS AND TECHNOLOGICAL INSTALLATIONS

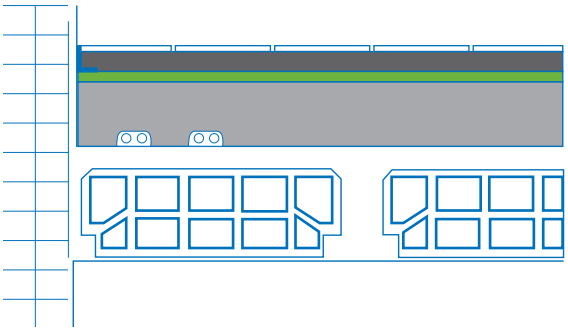


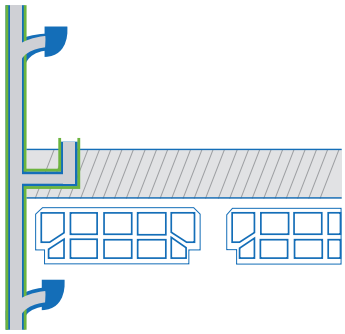
Polyolefin membrane bound on both sides with cross-linked polyethylene of 3 mm thickness.

APPLICATION FIELDS

Increase of soundproofing power of floors, walls and technological installations.

MAIN
APPLICATION FIELDS





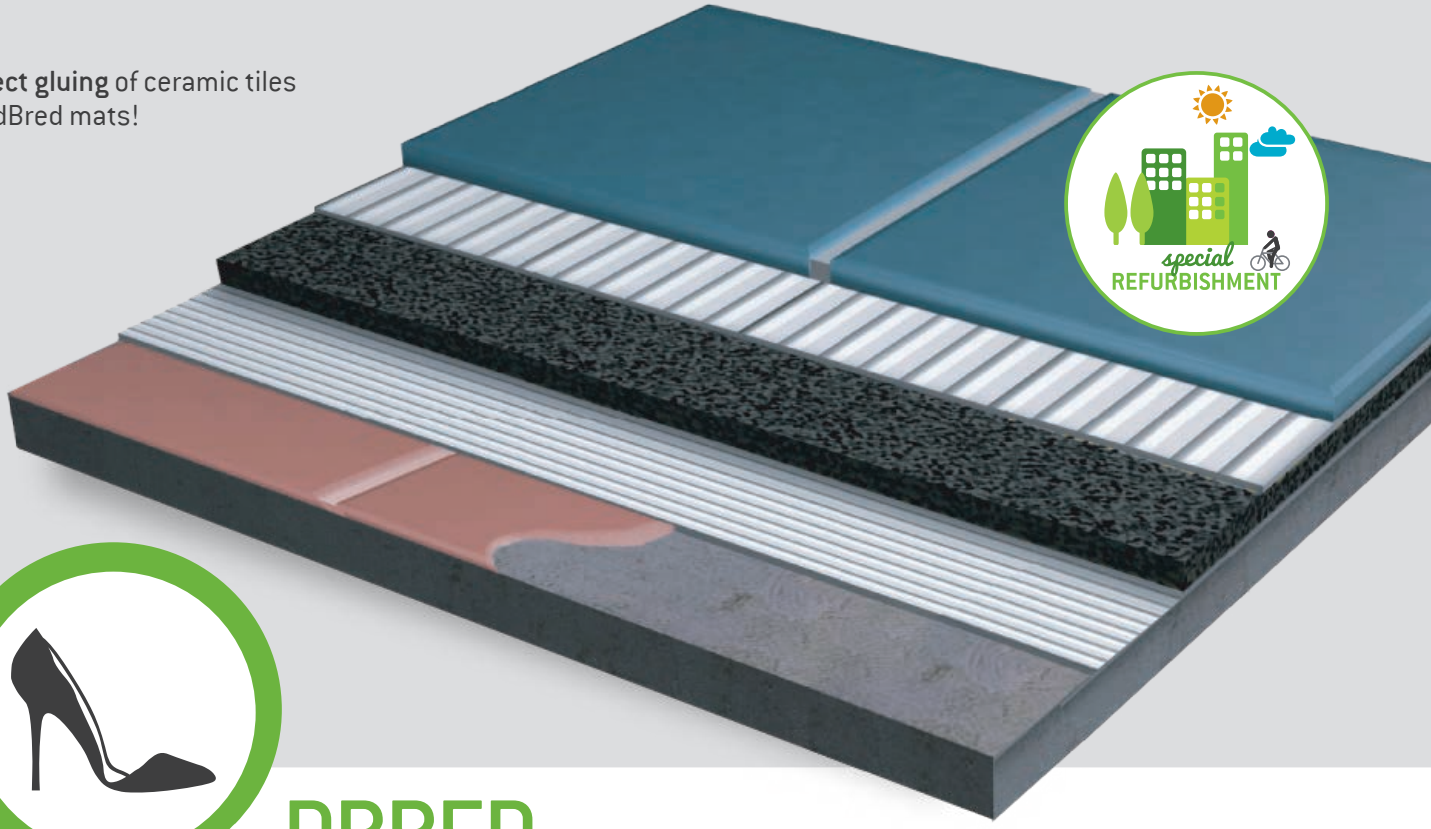
DBRED FONOTECH P / DBRED FONOTECH ECO P
Soundproofing mats for the acoustic insulation of partition walls and technological installations

TECHNICAL CHARACTERISTICS	DBRED FONOTECH P *	DBRED FONOTECH ECO P
Thickness mm	6,35	8
Acoustic insulation R_w (UNI EN ISO 140-3 **)	26 dB	
Dynamic stiffness s'_t MN/m³ (UNI EN 29052-1)	-	18
Roll dimensions cm	100 x 300	

* Availability on demand. Contact Edilteco Sales Department to know the delivery time.

*** corresponding to the current UNI EN ISO 10140-2*

> **Direct gluing** of ceramic tiles on dBred mats!



special REFURBISHMENT

DBRED PIANO ZERO FLOORING

Impact sound insulation system with direct gluing of ceramic tiles on dBred mats. It can be realized at low thicknesses, on cement surfaces or existing floors. It is particularly suitable for renovation works and for the reduction of the structural transmission of impact noises on stairs. The whole application cycle needs a cement glue for flooring.

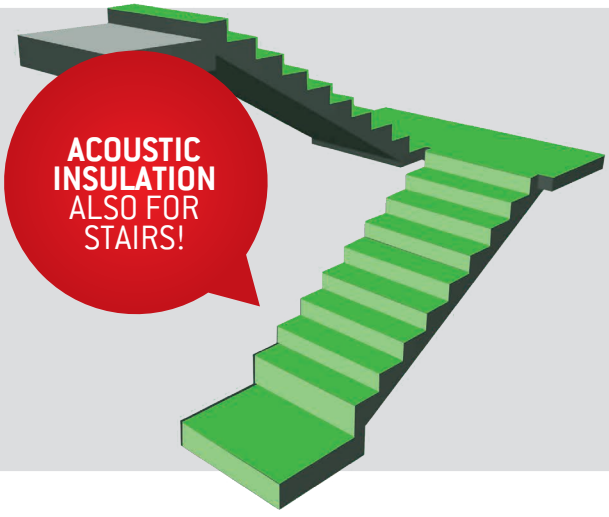
SUITABLE SURFACES FOR APPLICATION

Edilteco lightweight single-layer base screeds:

· Politerm® Blu (cement 300 - 350 kg/m^3), Isolcap Fein 300, Isolcap XX 500, Isolcap Speed 525, Isolcap Max 800;
· traditional or self-levelling cement base screeds;
· self-levelling anhydrite base screeds;
· existing ceramic floors.

TECHNICAL CHARACTERISTICS

· Tear strength: > 0,4 N/mm^2 (UNI EN 1348 - UNI EN 12004).
· Impact sound insulation: values of ΔL_w up to 17 dB (UNI EN ISO 140-7 *).
· Load to 25% of the crush: 0,28 N/mm^2 (UNI EN ISO 3386-2).

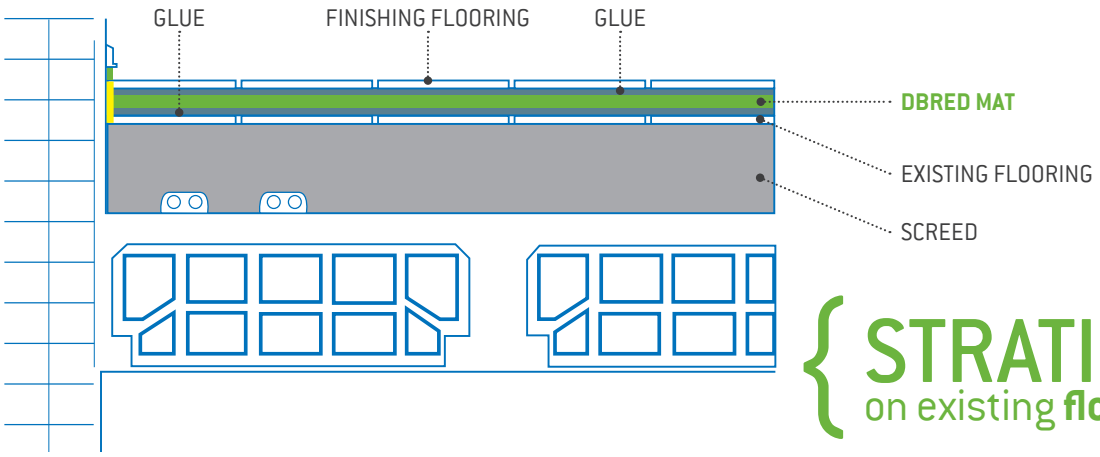


DBRED PIANO ZERO STAIRS

The intervention is optimal for the insulation of structural elements made of reinforced concrete such as **stairs and landings** or common passages even if already existing.

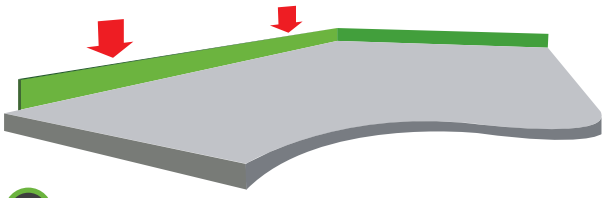
** corresponding to the current UNI EN ISO 16283-2*

CORRECT APPLICATION
DBRED PIANO ZERO SYSTEM

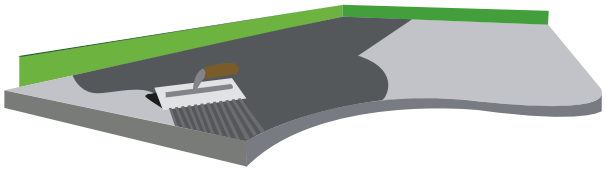


STRATIGRAPHY
on existing **flooring**

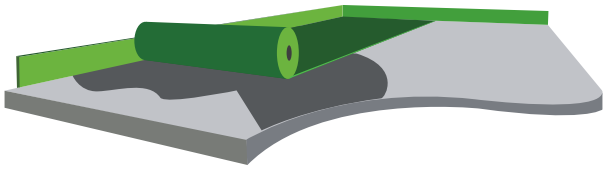
APPLICATION STEPS



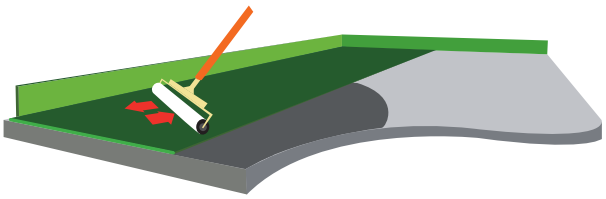
1 Vertical application of the LF5 stripes, along the perimeter.



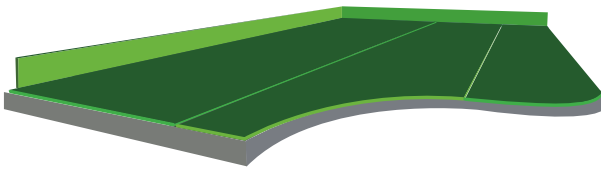
2 Lay the glue on the surface.



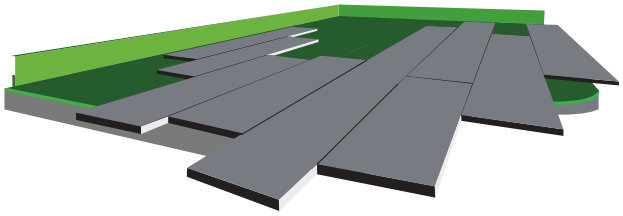
3 Lay the dBred pre-cut rubber mat on the glue.



4 Run the load roller on the mat.



5 Cover the whole surface. Wait for the drying of the cement glue, then remove the excessive glue and seal with silicone any possible imprecision near the joints.



6 Application of the new ceramic flooring.

DBRED LF5 STRIPES

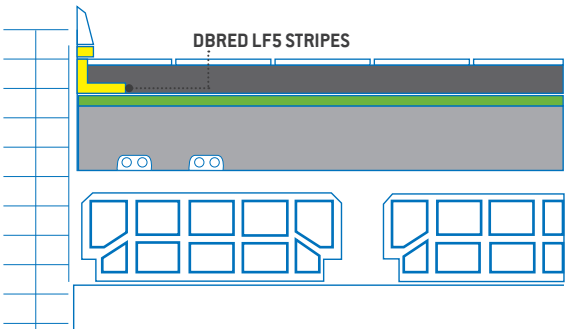
PERIMETER "L" STRIPES - ADHESIVE - POLYETHYLENE - ROLLS

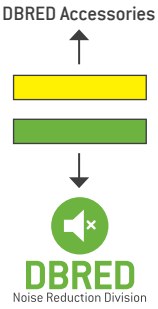
Adhesive stripes made of expanded polyethylene with hot creasing to make the "L" bending easier. The stripe is continuous and takes easily the "L" shape during the application, maintaining a part close to the vertical elements and the other part horizontally on the mat. The protective film of the adhesive can be partially removed, leaving the upper extremity protected. This makes the removal of the exceeding part over the floor very easy, without affecting the plasters on the walls with the adhesive.

APPLICATION FIELDS

Impact sound insulation on slabs with floating base screed system. Application along the perimeter to protect all the vertical partitions and the other elements during the application of the floating screed.

MAIN APPLICATION FIELDS





DBRED LF5 STRIPES Perimeter "L" stripes - Adhesive - Polyethylene - Rolls		
TECHNICAL CHARACTERISTICS	**DBRED LF5 10+5**	**DBRED LF5 15+5**
Thickness mm	5	5
Height of the vert. part cm	10	15
Width of the horiz. part cm	5	5
Roll height cm	15	20
Roll length m	50	50
Nr. rolls per pallet	10	7

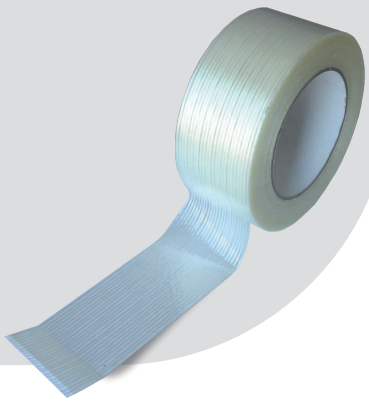
DBRED R-STICK GREEN

ADHESIVE TAPES

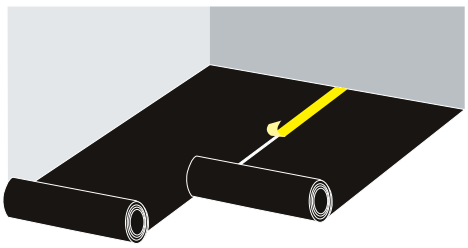
Adhesive tape with rubber thermosetting glue with polyester film support.

APPLICATION FIELDS

Seal of the joints of the SBR rubber mat and of all the dBred range mats.



MAIN APPLICATION FIELDS



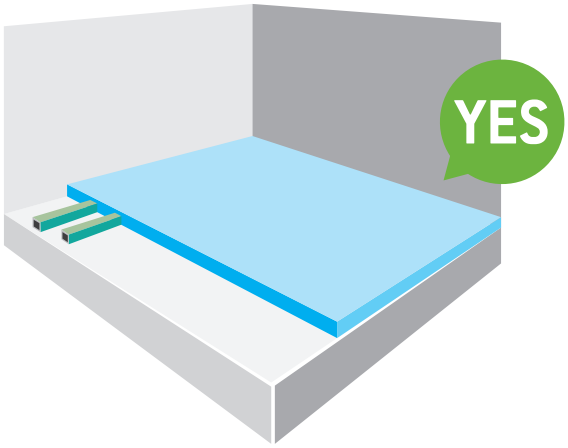
DBRED R-STICK GREEN Adhesive tapes	
TECHNICAL CHARACTERISTICS	**DBRED R-STICK GREEN**
Roll width mm	40
Roll length m	50
Nr. rolls per box	24

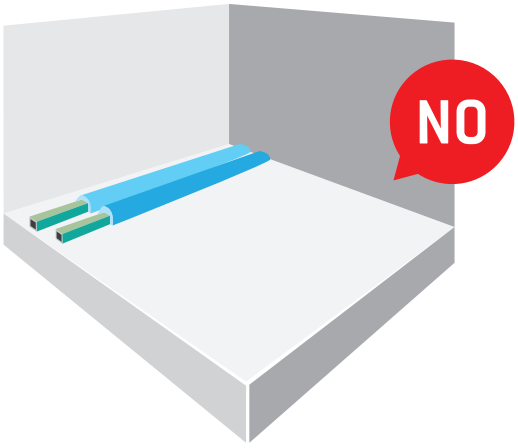
CORRECT APPLICATION
FLOATING BASE SCREED

Following the steps and the general indications for the application of a floating base screed system. Excluding some specific indications, it is considered applied the Standard UNI 11516 concerning the application of the floating floor system.

1) VERIFICATION OF THE LAYING SURFACE

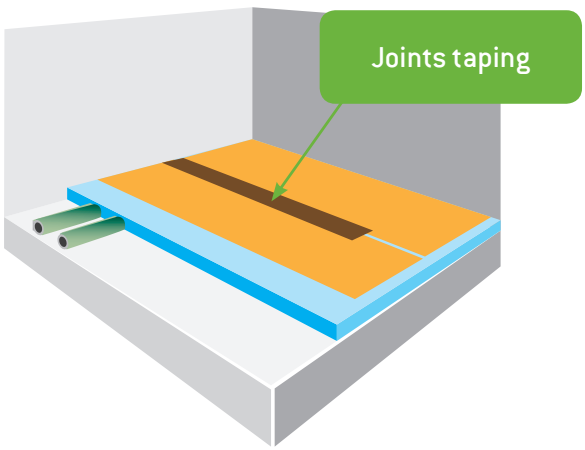
The laying surface of the dBred mat has to respond to the geometric and mechanical characteristics, in order to guarantee the correct functioning. The surface must be continuous and flat or with sloping changes able to guarantee the adherence of the mat (the high elasticity allows the acoustic functionality). The surface must be clean and free of any rubble coming from prior working. The roughness of the surface must have a maximum profile height equals to the half of the mat's thickness (the roughness is incorporated by the mat). The mechanical stability of the layer on which the mat is laid, must not have cracks or structural failures, which could compromise the correct functioning of the mat. It is not recommended the use of lightweight base screeds of air cellular self-claved concrete.

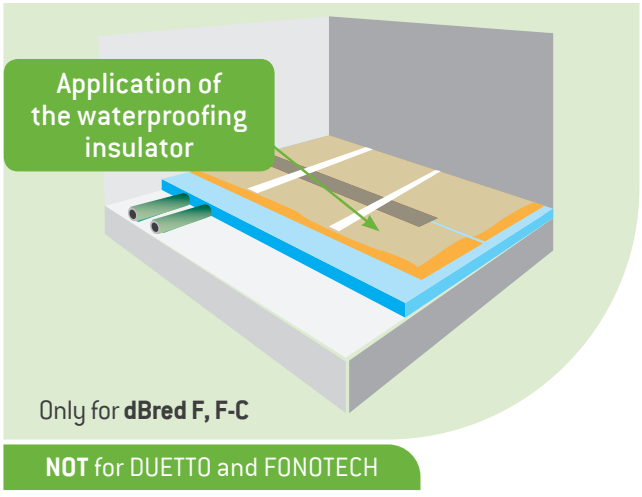




2) APPLICATION OF THE MAT

The application of the mat must be continuous on the whole surface with the floating cement base screed. The material must be laid continuously on the whole surface up to the beginning of each vertical element. The strips near the mat elements must be sealed with the suitable dBred R-Stick Green adhesive tape. In case of application of dBred F or F-C, after the application of the material, it is necessary to lay a PE waterproofing sheet with a thickness guaranteeing its entirety during the application of the cement base screed above (recommended thickness > 80 µm).

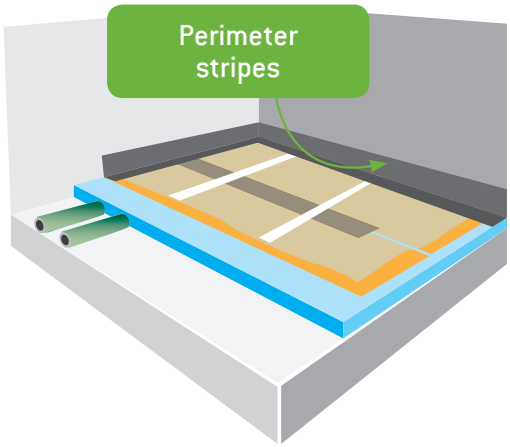




CORRECT APPLICATION
FLOATING BASE SCREED

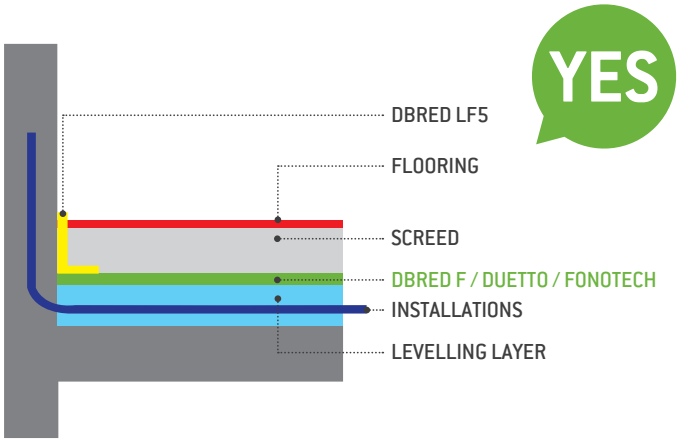
3) APPLICATION OF THE PERIMETER "L" STRIPES

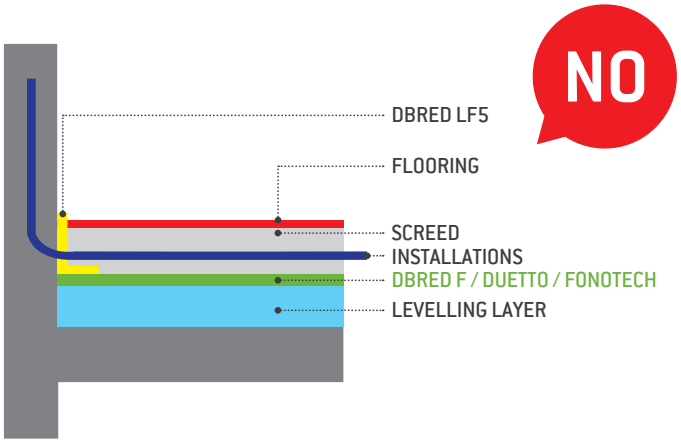
The application perimeter of the floating base screed must be free of any solid connection with the vertical partitions and threshold around its perimeter. To guarantee this separation, it is necessary to lay continuously dBred LF5 stripes along the whole perimeter of the floating base screed. The stripe's height must stick out the level of the finished flooring. The cut of the excessive perimeter band can be done only when the flooring is finished.



4) APPLICATION OF THE FLOATING BASE SCREED

The floating base screed has to be applied continuously and have the mechanical characteristics, according to the loads and its thickness, necessary to guarantee the mechanical stability. Inside, any connection with the floor or the walls must be present because of the installations passage.

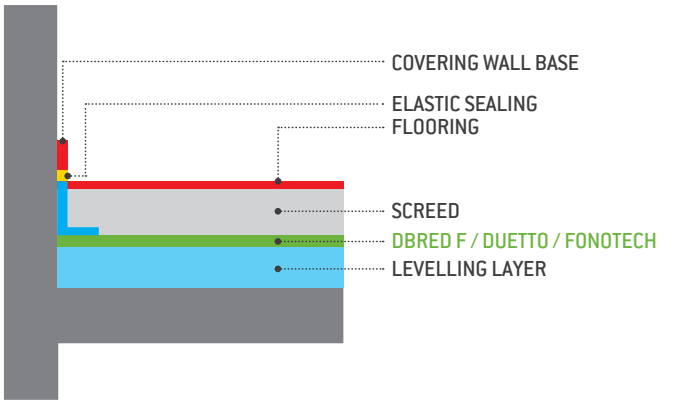




5) APPLICATION OF THE SKIRTING BOARD

The skirting board must be applied only after the finishing flooring. Only then it is possible to remove the excessive part of the perimeter stripe. The skirting board must be applied only to the wall, a few millimeters from the flooring.

- DO NOT FOLLOW THIS DEVICE MEANS TOTALLY UNDERMINE THE FUNCTIONING OF THE FLOATING FLOORING;
- THE GROUT LINE BETWEEN THE SKIRTING BOARD AND THE FLOORING MUST BE SEALED ONLY AFTER THE APPLICATION OF THE DETACHING SEAL OR ELASTIC SEALING.



AIRBORNE SOUND INSULATION

The increasing of the soundproofing power of the partition walls of houses, offices or buildings, it is necessary in order to avoid the spread of the noises coming from a housing unit, during the daily activities, to the neighboring units.

It is therefore necessary to define the most suitable acoustic system in order to obtain the insulation required by the project or in compliance with the values expected by the current legislation.
Among all the partition walls of the housing units, the intervention on vertical partitions result to be the most important, because of their conformation.

The bricks, widely used in building industry, are lightweight and poorly acoustically insulating for the required performances. Consequently it is necessary to increase their performances with soundproofing materials. For double masonry it is fundamental to insert materials into cavity walls, while for single walls it is necessary to realize the boarding in shaft walls. The paneling may be extended to the ceiling through horizontal structures having low soundproofing power.

The efficacy and the correct functioning of an acoustic system for vertical partitions depend on two fundamental factors. The first one is the correct designing, aimed to the choice of the material suited to the stratigraphy of the wall; the second one is the correct application of the system. This is realized by carefully following the application instructions of the acoustic insulation materials, while for the brick elements it is fundamental the realization phase. In order to develop the maximum acoustic performance, the boarding has to be realized with continuity of the joint mortar, both vertically and horizontally; any further break for the installation passage will have to be restored with cement material.

DBRED W

ACOUSTIC INSULATION - HIGH DENSITY SBR/MDI RUBBER - BOARDS

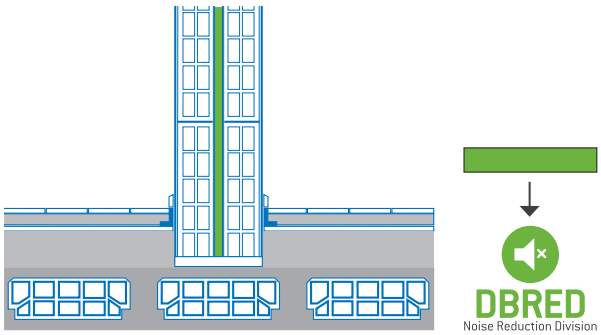
Single layer soundproofing board composed of selected SBR rubber granules bounded with high density polyurethane resins (MDI).

APPLICATION FIELDS

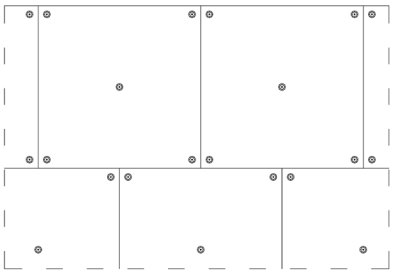
Acoustic correction of masonry partitions and external existing or new walls.

92%

MAIN APPLICATION FIELDS



APPLICATION SCHEMA



Application of dBred W20 boards.

N.B.
The paneling must be fixed with dowels as indicated in the scheme.

DBRED W Acoustic insulation - High density SBR/MDI rubber - Boards		
TECHNICAL CHARACTERISTICS	**DBRED W10**	**DBRED W20**
Thickness mm	10	20
Density kg/m^3	740 ± 10%	
Dynamic stiffness s'$_t$, MN/m^3 (UNI EN 29052-1)	42	31
Board dimensions cm	120 x 120	
Unit weight kg/m^2	7,40	14,8
Nr. boards per pallet	80	40

CERTIFIED SYSTEM according to UNI EN ISO 10140-2

DESCRIPTIONS	R_w[dB]
Double hallow brick masonry of 12 + 12 cm, externally plastered and with internal rough coating - dBred W20 applied with glue.	64
Double block masonry YTONG of 8 + 8 cm, externally plastered - dBred W20 applied with glue.	58
GASBETON Evolution 500 Double masonry of 10 + 8 cm, externally plastered - dBred W20 applied with glue.	56
Double hallow brick masonry of 10 + 8 cm, externally plastered and with internal rough coating - dBred W10 applied with glue - polyester fiber.	53

DBRED F3 STRIPES

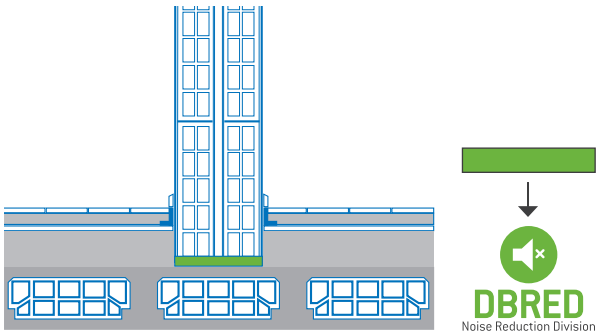
UNDERWALL STRIPES 3 mm - SBR/MDI RUBBER - ROLLS

Underwall stripes in rolls composed of granules and selected SBR rubber bounded with polyurethane resins (MDI) with a density of 710 kg/m³. This material has an optimal elasticity and mechanical resistance assuring long lasting acoustic performances.

APPLICATION FIELDS

Impact sound insulation on slabs with floating base screed system. It is applied around the perimeter to protect all the vertical partitions during the application of the floating base screed or only during the installation of the floating cladding.

MAIN APPLICATION FIELDS



DBRED F3 STRIPES Underwall stripes 3 mm - SBR/MDI rubber - Rolls							
TECHNICAL CHARACTERISTICS	DBRED F3-F10 *	DBRED F3-F15	DBRED F3-F20	DBRED F3-F25	DBRED F3-F30	DBRED F3-F35 *	DBRED F3-F40 *
Thickness mm	3						
Roll height cm	10	15	20	25	30	35	40
Roll width cm	1800						
Nr. rolls per pallet	160	96	72	58	44	36	36
Dynamic stiffness s'_t MN/m³ (UNI EN 29052-1)	78						
* Availability on demand. Contact Edilteco Sales Department to know the delivery time.							

CORRECT APPLICATION

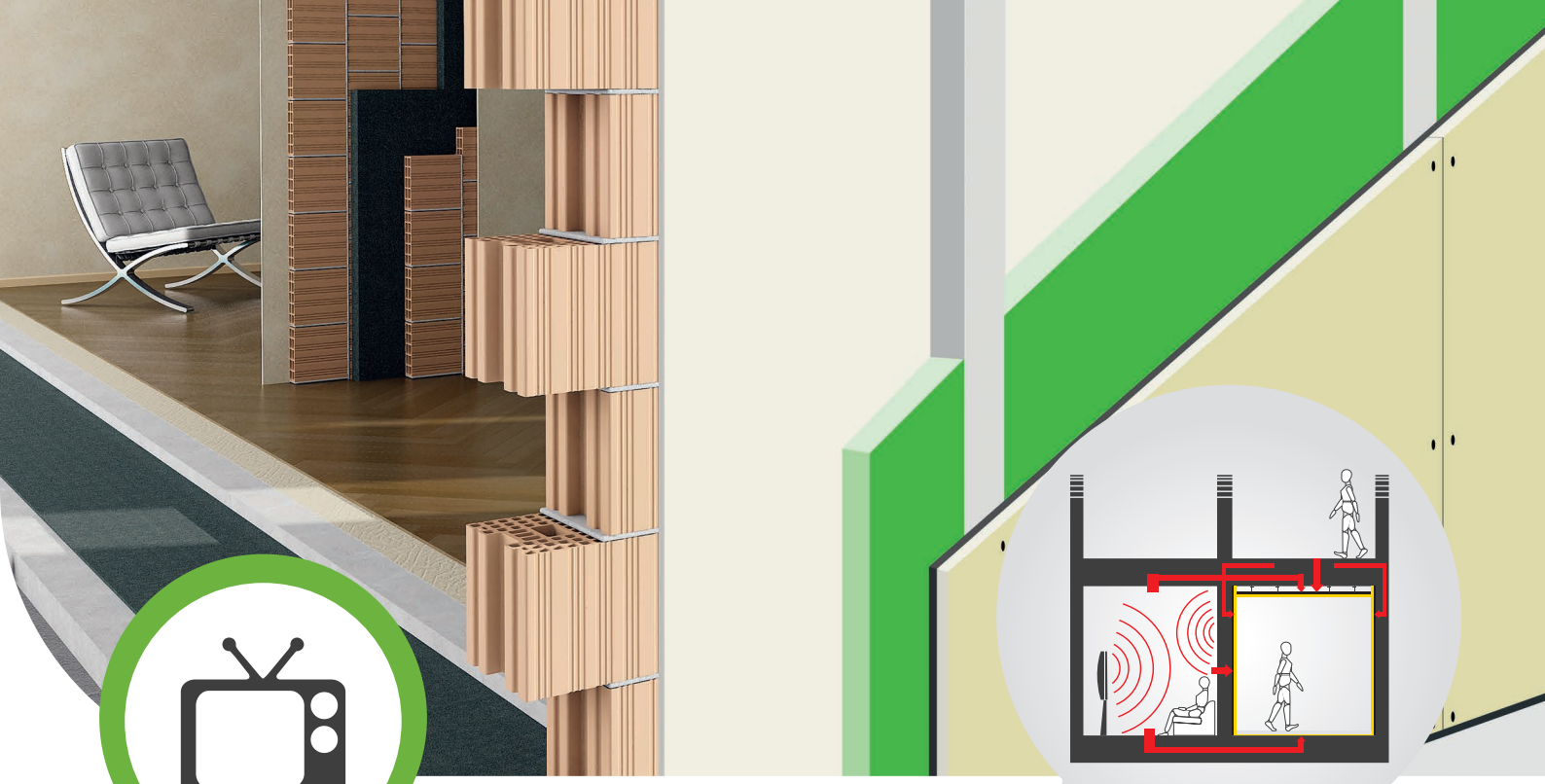
UNDERWALL STRIPES F3

1. VERIFICATION OF THE LAYING SURFACE

The laying surface must be flat and free of any loose part coming from prior working phases or roughness in order to guarantee the mechanical stability and the correct functioning of the material.

2. APPLICATION OF THE UNDERWALL STRIPE

The stripe is applied on the nude slab before the boarding realization. Its width must be enough to contain the boarding and the related plasters. The first line of bricks will have to be applied on the stripe with the same cement mortar used for the realization of the wall. In case of double walls, it will be necessary to apply more stripes to contain every brick and its plasters or a single stripe able to contain the thickness of the brick and its plasters. The application of the bricks will have to be continuous with mortar joint both horizontally and vertically.

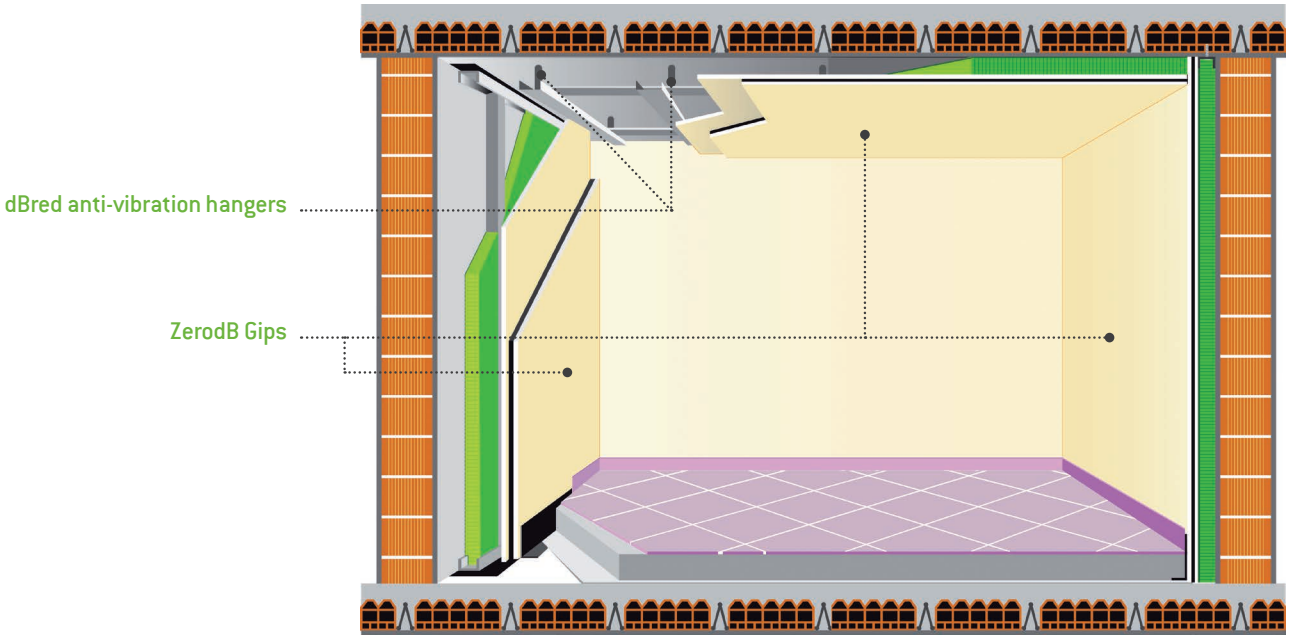


INCREASE OF ACOUSTIC INSULATION OF VERTICAL AND HORIZONTAL PARTITIONS

Thanks to the use of ZerodB GIPS boards we realize cladding or false ceilings for the thermo-acoustic refurbishment of traditional brick partitions. Developing in a few centimeters they are particularly suitable for the renovation of buildings with high acoustic performances.

INTERVENTIONS OF DRY LINING

They aim to insulate a residential area from the neighboring areas transmitting the internal noises through the structural elements which are connected among them.
The intervention aims at reducing the passage to a single transmission way or to the reduction of all the possible transmissions, realizing a continuous system over the entire surface.



DBRED ZERODB GIPS

MULTILAYER ACOUSTIC BOARD - HIGH DENSITY SBR/MDI RUBBER + PLASTERBOARD - BOARDS

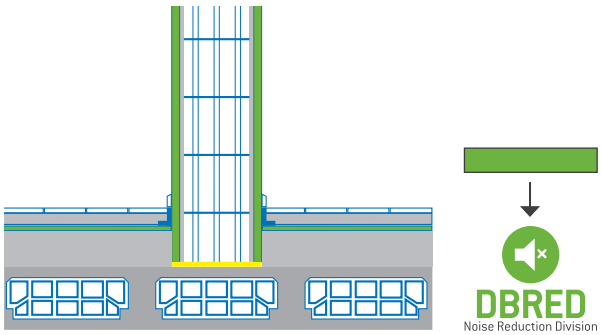
Special multilayer board composed of a gypsum board and a sheet of SBR rubber granules bounded with high density polyurethane resins (MDI). High soundproofing performance and reduced resonance phenomenon. Fire resistance class B-s1,d0 according to UNI EN 13501-1.

APPLICATION FIELDS

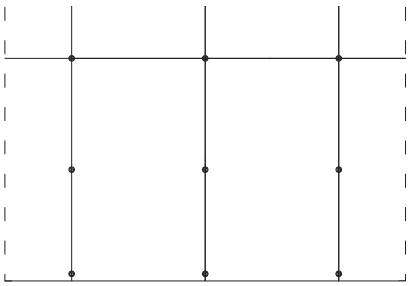
Increase of the acoustic insulation of existing and/or newly designed horizontal and vertical partitions with false ceiling or shaft wall system. Realization of dry partitions with high soundproofing power.

special REFURBISHMENT

MAIN APPLICATION FIELDS



APPLICATION SCHEMA



Application of ZerodB GIPS boards.

N.B.
The paneling must be tiled as the scheme shows.

DBRED ZERODB GIPS
Multilayer acoustic board - High density SBR/MDI rubber + Plasterboard - Boards

TECHNICAL CHARACTERISTICS	DBRED ZERODB GIPS 150-5	DBRED ZERODB GIPS 150-10
Thickness mm	20	25
Rubber density kg/m^3	740 ± 10%	
Board dimensions cm	120 x 200	
Fire reactivity class (UNI EN 13501-1)	B-s1,d0	
Weight kg/m^2	15,60	19,30
Nr. boards per pallet	28	23

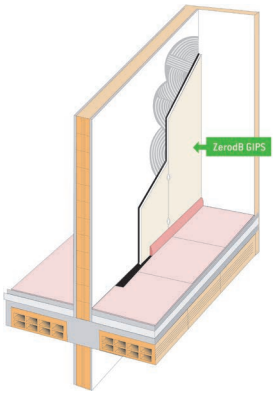
SOLUTIONS WITH ZERODB GIPS

PARTITION WALLS

SOLUTION 1

DIRECT PANELING ON THE WALL

The application of ZerodB GIPS boards is made directly on the wall through Ecap® ADP glue and nylon dowels, according to what indicated in the application data sheet. The superficial finishing will be realized with products for gypsum-based boards.
Total thickness: 25 mm.



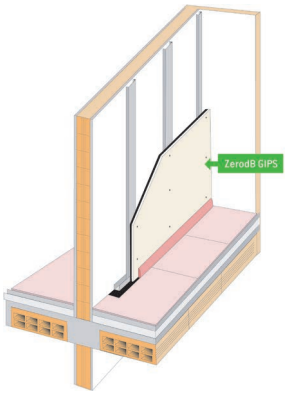
CERTIFICATE	R_w	ΔR_w
With ZerodB GIPS 150-10 boards of 25 mm thickness, on brick wall of 12 cm plastered on both sides.	53 dB	7 dB

Lab. data according to UNI EN ISO 10140-1 and 2

SOLUTION 2

IN SEMI-ADHESION TO THE WALL ON PILLARS OF 15 x 50 mm

The application of ZerodB GIPS boards is made through self-drilling screws on supports of 15 x 50 mm positioned at pitch 600 mm and fixed for points to the wall by specific hangers with metal dowels. The superficial finishing is realized with products for gypsum-based boards made. **Total thickness: 35/40 mm.**



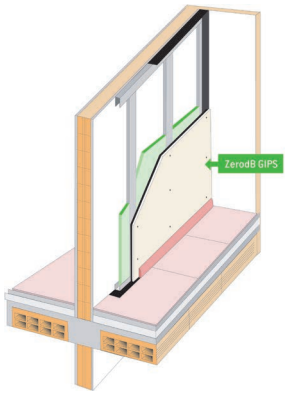
CERTIFICATE	R_w	ΔR_w
With ZerodB GIPS 150-5 boards of 20 mm thickness, on brick wall of 12 cm plastered on both sides.	52 dB	6 dB
With ZerodB GIPS 150-10 boards of 25 mm thickness, on brick wall of 12 cm plastered on both sides.	55 dB	9 dB

Lab. data according to UNI EN ISO 10140-1 and 2

SOLUTION 3

SHAFT WALL, WITH SELF-SUPPORTING METAL STRUCTURE - PILLARS 27 x 50 mm

The application of ZerodB GIPS boards is made through self-drilling screws on self-supporting metal structure, with "C" profiles 27 x 50 mm at pitch 600 mm and "U" perimeter guide 27 x 30 mm fixed around the perimeter by metal dowels and interposed dBred F3 stripes. The superficial finishing is realized with products for gypsum-based boards. **Total thickness: 50 mm.**



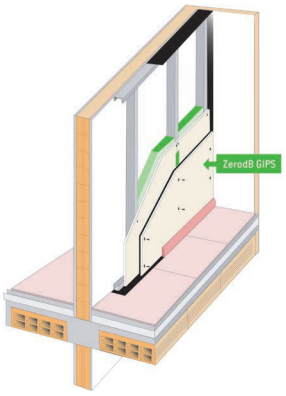
CERTIFICATE	R_w	ΔR_w
With ZerodB GIPS 150-5 boards of 20 mm thickness, on brick wall of 12 cm plastered on both sides.	61 dB	15 dB

Lab. data according to UNI EN ISO 10140-1 and 2

SOLUTION 4

SHAFT WALL, WITH SELF-SUPPORTING METAL STRUCTURE - PILLARS 50 x 50 mm

The application of ZerodB GIPS boards is made through self-drilling screws on self-supporting metal structure, with "C" profiles 50 x 50 mm at pitch 600 mm and "U" perimeter guide 50 x 40 mm fixed around the perimeter by metal dowels and interposed dBred F3 stripes. The superficial finishing is realized with products for gypsum-based boards. **Total thickness: 85 mm.**



CERTIFICATE	R_w	ΔR_w
With ZerodB GIPS 150-10 boards of 25 mm thickness, on brick wall of 12 cm plastered on both sides.	63 dB	18 dB

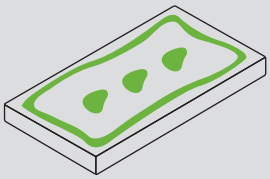
Lab. data according to UNI EN ISO 10140-1 and 2

ECAP® ADP
GLUE IN POWDER FOR RUBBER BOARDS

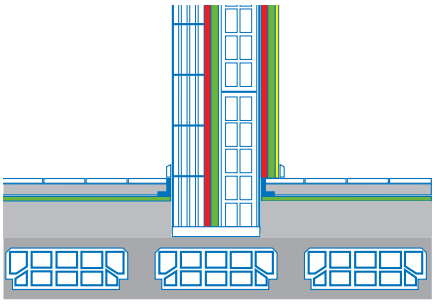
Cement-based glue and levelling mortar for manual and mechanical application.

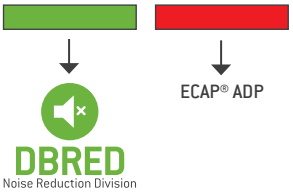
APPLICATION FIELDS
Glue in powder for the gluing of dBred W and ZerodB GIPS boards on cement-brick supports.

USE



MAIN APPLICATION FIELDS





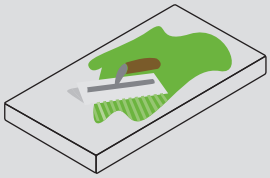
ECAP® ADP Glue in powder for rubber boards	
TECHNICAL CHARACTERISTICS	ECAP® ADP
Bag weight kg	25
Nr. bags per pallet	54

ECAP® APR
SMOOTHING MORTAR IN PASTE, CEMENT-FREE

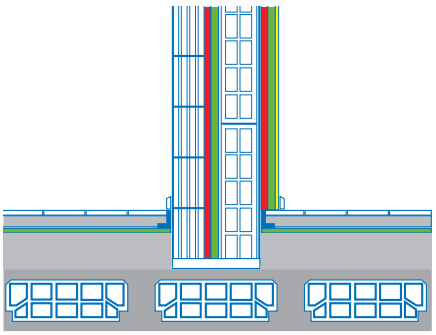
Smoothing mortar in paste, composed of synthetic polymers without cement, for internal and external use. Ecap® APR, with high flexibility and impact resistance (EN 13498 Cat. 2) is particularly suitable for application with mesh. The product is flexible, resistant and manageable. It does not require cement addition and it is easy to work.

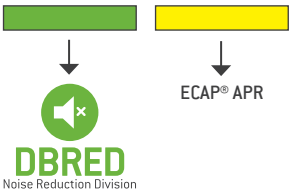
APPLICATION FIELDS
It is used to smooth ZerodB GIPS boards, for thermal insulating systems in accordance with ETAG 004, such as EDIL-Therm and ECAP® systems; for the smoothing of expanded extracted polystyrene boards without peel; mineral fiber (glass or rock), cork, wooden fiber boards; for reinforced smoothing with fiberglass.

USE



MAIN APPLICATION FIELDS





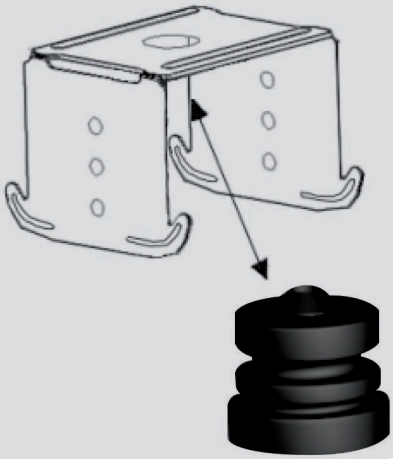
ECAP® APR Smoothing mortar in paste, cement-free	
TECHNICAL CHARACTERISTICS	ECAP® APR
Bucket kg	25
N° buckets per pallet	24

GIPS RUBBER 01*
ANTI-VIBRATION HANGERS

Anti-vibration hangers for slab ceilings. dBred Gips Rubber 01, when combined with the suitable galvanized metal hanger, offers insulation from the vibration of sheets false-ceilings. The central hole of dBred Gips Rubber 01 has a diameter of 8 mm for the passing bolt. It is possible to use a threated beam in order to regulate the false-ceiling height. The rubber loops make the application at the false-ceiling hangers quick and fast, to connect the standard profiles of the false-ceiling 50 x 27 mm.

APPLICATION FIELDS
· Insulation of sheet false-ceiling.
· Fast connection to the steel profiles for false-ceiling.

For the technical characteristics, please consult the technical data sheets.

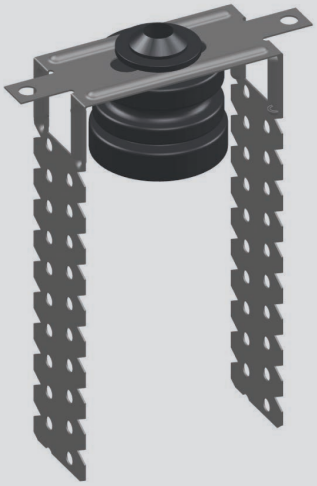


GIPS RUBBER 02*
ANTI-VIBRATION HANGERS

Anti-vibration hangers for sheets systems. dBred Gips Rubber 02 is composed of a galvanized hanger with a special anti-vibration support on the top (Gips Rubber 01). Thanks to a screw, passing on the rubber support, the hanger can be hanged to the ceiling. The anti-vibration dBred Gips Rubber 02 support is a product realized with high quality elastomers with static deflection in order to define the perfect load for efficient vibration insulation.

APPLICATION FIELDS
· Anti-vibration suspension for sheet false-ceiling.
· Anti-vibration suspension of air ducts, air-conditioning ...

For the technical characteristics, please consult the technical data sheets.

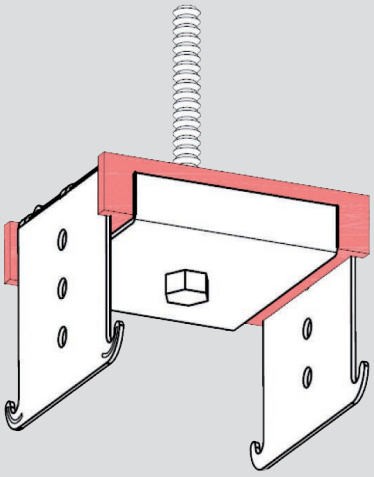


GIPS FOAM*
ANTI-VIBRATION HANGERS

Anti-vibration hangers for sheets false-ceiling. dBred Gips Foam has a suspension galvanized steel structure, which is quickly and easily connected to the standard profiles for false-ceilings with dimensions of 50 x 27 mm, making the application easier and reducing the costs.
The hanger's elastomer is made of high quality polyurethane foam.

APPLICATION FIELDS
· Insulation of false-ceiling.
· Fast and easy connection to the steel profiles for false-ceiling.

For the technical characteristics, please consult the technical data sheets.



* Availability on demand. Contact Edilteco Sales Department to know the delivery time.

RUBBER 01*
ANTI-VIBRATION HANGERS

Multipurpose anti-vibration supports. It can be fixed with an anchor to the floor, or hanged with a steel support and passing screw (8 mm diameter), anchored to the slab. Thanks to its design, dBred Rubber 01 provides great deflection with reduced load, which means more vibration insulation.
The anchorage screw of the suspension has to be perpendicular to the surface. The machinery weight must be applied on the upper surface of dBred Rubber 01.

APPLICATION FIELDS
· Suspension of machineries.
· Suspension of soundproofing false-ceiling.

For the technical characteristics, please consult the technical data sheets.

RUBBER M01*
ANTI-VIBRATION HANGERS

Multi-shape anti-vibration suspension with dBred Rubber 01. The anti-vibration dBred Rubber M01 hangers are made of galvanized steel. The incisions on the clamp allow to easily bending them with hands on different heights to obtain the desired suspension.

APPLICATION FIELDS
· Anti-vibration suspension of acoustic false-ceiling.
· Anti-vibration suspension of air ducts and air conditioning ...

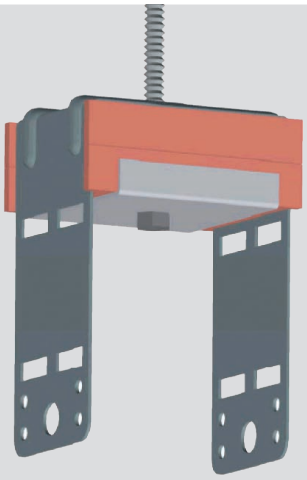
For the technical characteristics, please consult the technical data sheets.

GIPS FOAM-M*
ANTI-VIBRATION HANGERS

Multi-shape anti-vibration suspension with Regufoam®. The anti-vibration dBred FOAM-M hangers are made of galvanized steel and the elastomer of high quality polyurethane foam.

APPLICATION FIELDS
· Anti-vibration suspension of acoustic false-ceiling.
· Anti-vibration suspension of air ducts, air conditioning ...

For the technical characteristics, please consult the technical data sheets.



* Availability on demand. Contact Edilteco Sales Department to know the delivery time.

PERFECT FOR schools, convention centers, religious buildings and reverberating environments!

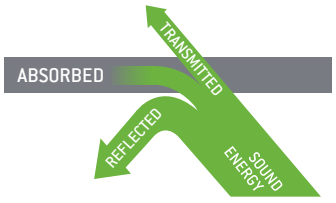
ACOUSTIC ABSORPTION

ARCHITECTURAL ACOUSTICS
AND SOUND ABSORPTION

Specific for the acoustics of closed spaces, it is intended for the most different activities. Its aim is to control the indoor sound propagation. This control can be connected to the aim to obtain a specific acoustic response in places like theaters, auditorium or concert halls. In other cases, it can simply reduce the internal reverberation, which makes the space uncomfortable, like in restaurants, canteens, swimming pools, churches, etc. In these places, few people are enough to make a lot of noise and it becomes hard to listen.

SOUND ABSORPTION

When a sound wave hits the internal surfaces of a closed space, part of its energy is reflected, some absorbed and another part is transmitted through the same surface.



The reflected sound energy depends on the acoustic absorption characteristics of the surface, while the transmitted one depends on the acoustic insulation characteristic of the system.

HOW TO MEASURE IT?

The Acoustic Absorption describes the attitude of a material or a system to not reflect the sound. The **acoustic absorption coefficient** indicates that the sound energy fraction not reflected (so absorbed) from the material and it is indicated as α_s. It assumes values from 0 (non-absorbing) to 1 (totally absorbing) for each reference sound frequency.

NOT TO BE CONFUSED WITH: soundproofing power of a system, which refers to its tendency to not transmit sounds. It is represented by the attenuation (in dB) of the sound through the system.

IN PRACTICE: a soundproofing material covering the internal reflecting surfaces of a room, reduces the possible reflections of the sound waves, absorbing them and avoiding too long reverberations inside the environment, making internal spaces more pleasant and reducing the possibility to create a high internal noise. The sound propagation will be controlled and it will be easier for people to talk and listen each other.

SONOPHONE

PREMIXED PLASTER WITH HIGH ACOUSTIC ABSORPTION, FOR THE CORRECTION OF REVERBERATING ENVIRONMENT

Soundproofing plaster to be sprayed, specific for the treatment of internal surfaces. Sonophone gives a wonderful white or black color. It is a plaster which requires only the addition of water on site to obtain a pumping mixture with plastering machines.

APPLICATION FIELDS

It is ideal for new construction, renovations or environment refurbishment. It can be applied on gypsum boards, cement plasters, concrete and steel surfaces (if treated before). Its characteristics make it perfect for application in convention centers, schools and religious and didactic buildings.

For further information consult the technical datasheet.

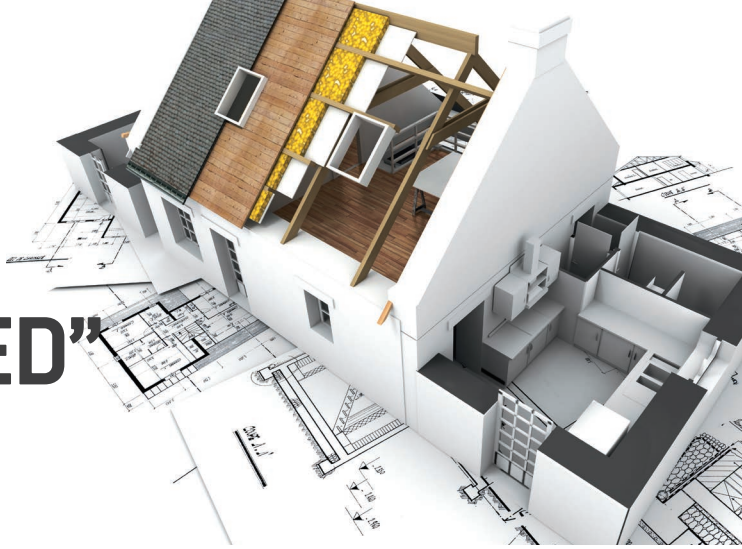
SONOPHONE
Premixed plaster with high acoustic absorption, for the correction of reverberating environment

TECHNICAL CHARACTERISTICS	SONOPHONE *
Colour	white, black
Packaged in bags kg	20,5
Dry density kg/m^3 (ASTM E605)	368
Air erosion g/m^2 (ASTM E859)	0,003
Adhesion strength kg/m^2 (ASTM E736)	1173
Compressive strength Mpa (ASTM E761)	0,17
Fire reaction (UNI EN 13501-1)	A1

* Availability on demand. Contact Edilteco Sales Department to know the delivery time.

SOUNDPROOFING FEATURES

			COEFFICIENTS OF ACOUSTIC ABSORPTION ASTM C423 - UNI EN ISO 354 - UNI EN ISO 11654																		INDICATORS	ABSORPTION CLASS
			FREQUENCY (Hz)																			
	APPLICATION		100	**125**	160	200	**250**	315	400	**500**	630	800	**1000**	1250	1600	**2000**	2500	3150	**4000**	5000		
1	Thick. 13 mm adherence	α_S	0,07	0,02	0,02	0,02	0,1	0,19	0,23	0,28	0,41	0,6	0,7	0,84	0,91	0,94	0,91	0,86	0,88	0,89	NRC = 0,50	-
		α_P		0,05			0,10			0,30			0,70			0,90			0,90		α_W = 0,35 (MH)	D
2	Thick. 25 mm adherence	α_S	0,06	0,04	0,14	0,15	0,3	0,44	0,6	0,8	0,91	1,05	1	0,93	0,91	0,88	0,9	0,92	0,93	0,99	NRC = 0,75	-
		α_P		0,10			0,30			0,80			1,00			0,90			0,95		α_W = 0,60 (MH)	C
3	Thick. 13 mm semi-adherence	α_S	0,17	0,19	0,29	0,35	0,56	0,61	0,63	0,68	0,7	0,72	0,72	0,78	0,77	0,79	0,82	0,86	0,89	0,92	NRC = 0,70	-
		α_P		0,20			0,50			0,65			0,75			0,80			0,90		α_W = 0,70 (H)	C
4	Thick. 50 mm adherence	α_S	0,24	0,3	0,38	0,49	0,64	0,84	0,85	0,85	0,82	0,79	0,81	0,86	0,82	0,86	0,86	0,86	0,92	0,95	NRC = 0,80	-
		α_P		0,30			0,65			0,85			0,80			0,85			0,90		α_W = 0,85	B
5	Thick. 25 mm semi-adherence	α_S	0,25	0,28	0,37	0,52	0,74	0,73	0,73	0,8	0,8	0,82	0,82	0,87	0,93	0,91	0,91	0,93	0,94	0,99	NRC = 0,80	-
		α_P		0,30			0,65			0,80			0,85			0,90			0,95		α_W = 0,85 (H)	B
6	Thick. 25 mm cavity wall	α_S	0,96	0,44	0,42	0,46	0,53	0,48	0,5	0,64	0,71	0,82	0,88	0,94	0,97	0,96	0,98	1,01	0,98	1,08	NRC = 0,75	-
		α_P		0,60			0,50			0,60			0,90			0,95			1,00		α_W = 0,7 (H)	C



"CUSTOMISED" DESIGN SERVICE

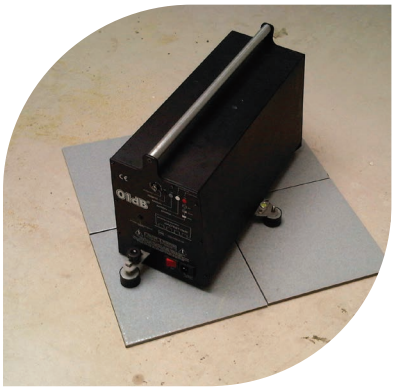
The Acoustics is the branch of physic which is based not only on theories, but especially on the experimental research, which have brought to its rules and models.

The experimental way is surely essential in mechanics or in medicine, but also in building, where sometimes, it is important to validate unknown projects.

Edilteco, investigating the performances of materials and systems, offers to its customers and companies the possibility to discover this experimental way. The demand is born on the market, because of the new building systems and the unknown acoustic possibilities. Also in the acoustics field, buildings can develop their performances in order to give a better living comfort.

Edilteco, talking with its suppliers of construction systems or Acoustics Technical studies, is able to individuate the more suitable materials to give the best response for this need.

For instance, it realizes sample rooms in building sites or in specific commissioned laboratories.



Since 1981 the main goal of Edilteco Group is the continuous research to get the best compromise between quality and cost. This research concerns also the dBred acoustic division, characterized by a range of certified materials in accordance with the current legislation of environmental acoustic comfort. All the proposed products have been tested on site by several accredited laboratories.
However, our engagement goes further, providing to designers and construction companies, a full and complete support, from the design phase to the application. Our effort also consists in providing precise and professional solutions related to the real problems of acoustic insulation. We offer a wide but focused range of products, chosen for their lasting and high quality performances: a solution for every need, from impact sound to airborne sound insulation, from sound absorption to anti-vibration.

EDILTECO,
AN INTERNATIONAL SUCCESS

italy . france . benelux

360° Insulation

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Edilteco is associated with:

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

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