

THE RAISED ACCESS FLOOR

NESITE®

raising your projects



50 YEARS OF CONTINUOUS GROWTH

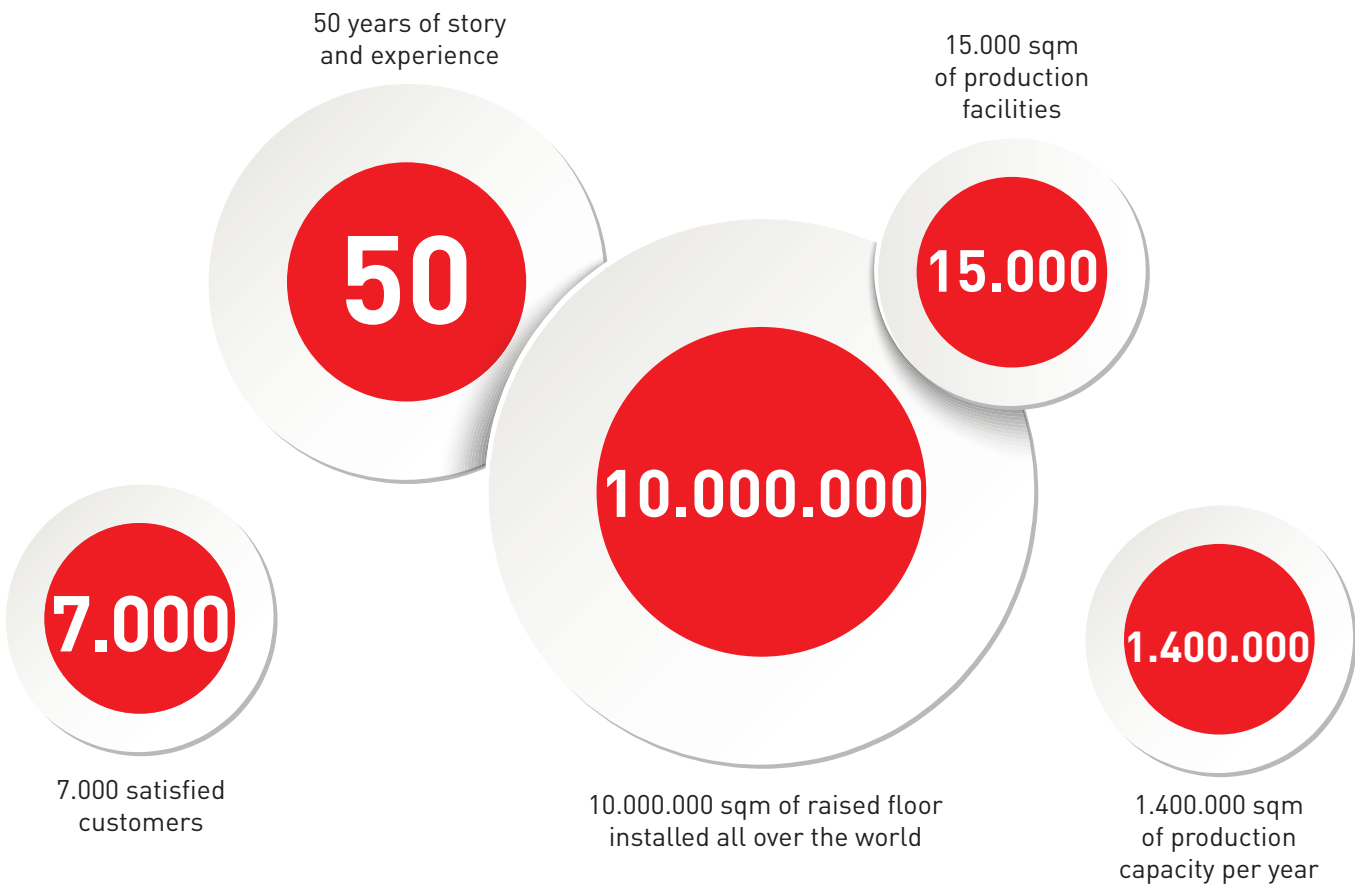
Nesite, a leader in the production and sale of raised floor systems, is a company that combines the professionalism of a structured and dynamic organization with the most experienced know-how in the industry. By choosing NESITE, the customer ensures a high technical support with tailor-made solutions specifically aimed to meet the most original needs with a competent and flexible approach to understand and suggest the most reliable and innovative solutions. Creativity, technical expertise, attention to the detail and innovation; a mix that has one purpose only: the customer's technical and aesthetical satisfaction.

For 50 years Nesite stands out, in a global context of strong competitiveness, for its experience and expertise, thanks to which in recent years the brand of the TGS group has achieved and accomplished very important projects, both from a technical and quality point of view.

Global Management Service: through a structure composed of highly qualified personnel, Nesite is able to follow even the most exclusive and complex projects as a whole, from the first business analysis to the laying of the last panel. Nesite does not only watch over the quality of products, but it also follows all the facilities to carry out the most complex projects in full compliance with the rules for environmental protection.



NESITE - OUR STRENGTH IN NUMBERS



In addition to the ISO 9001 quality certification, NESITE has obtained the certification of environmental management system, according to the international standard UNI EN ISO 14001, which is now an element of excellence in the evaluation of companies and of their environmental impact. All NESITE systems are Made in Italy.

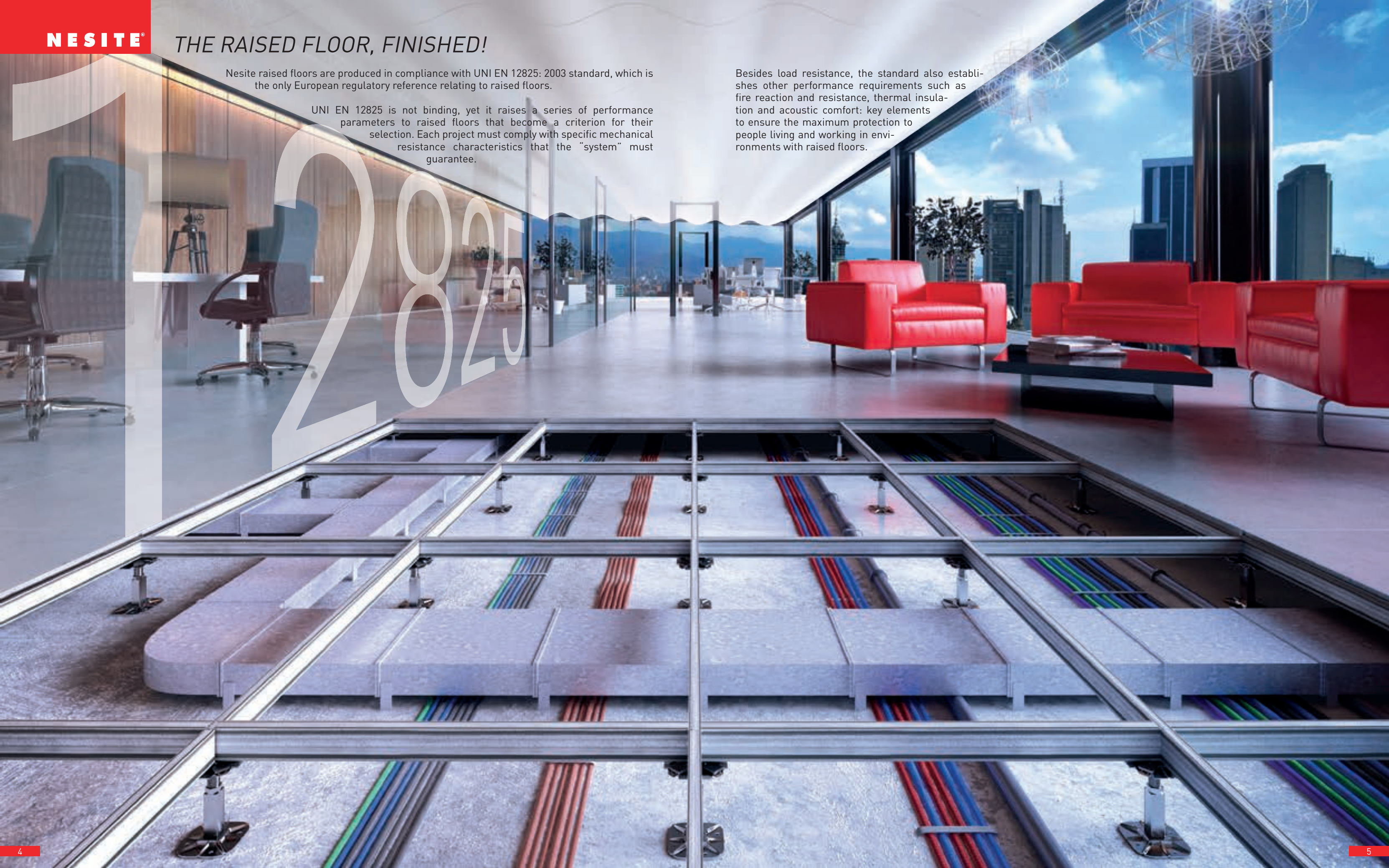


THE RAISED FLOOR, FINISHED!

Nesite raised floors are produced in compliance with UNI EN 12825: 2003 standard, which is the only European regulatory reference relating to raised floors.

UNI EN 12825 is not binding, yet it raises a series of performance parameters to raised floors that become a criterion for their selection. Each project must comply with specific mechanical resistance characteristics that the "system" must guarantee.

Besides load resistance, the standard also establishes other performance requirements such as fire reaction and resistance, thermal insulation and acoustic comfort: key elements to ensure the maximum protection to people living and working in environments with raised floors.





THE RAISED FLOOR AND ITS ELEMENTS

Current work environments are now dynamic spaces, subject to continuous and rapid developments.

The raised floor fully meets these requirements and is the right answer to the need of flexibility and space management in order to meet the emerging operational needs.

By creating an accessible gap between the floor slab (or the existing floor) and the underside of the panels, the raised floor forms a "technical volume" where facilities of various kinds can be placed: electrical, phone, plumbing, computer and, especially, air-conditioning.

The elements that make up a raised floor are two: the raising steel **structure** and the movable modular **panels** that form the walkable surface.

The Structure

The structure is the fundamental element of a raised floor, as it determines the desired elevation and height over the surface it is lying on. It is composed of two elements: the **columns** which constitute the vertical element adjustable in height, and the connection **stringers**. The structure is available in different heights for different needs; from a minimum of 3 cm to 100 cm in the standard version. On request, it is also available for bigger heights, a condition that requires specific design and installation features. The columns are made of galvanized steel, with the possibility of precise adjustment in height. The NESITE structure is able to bear very high loads, as it relies on different types of stringers, both open and closed section.



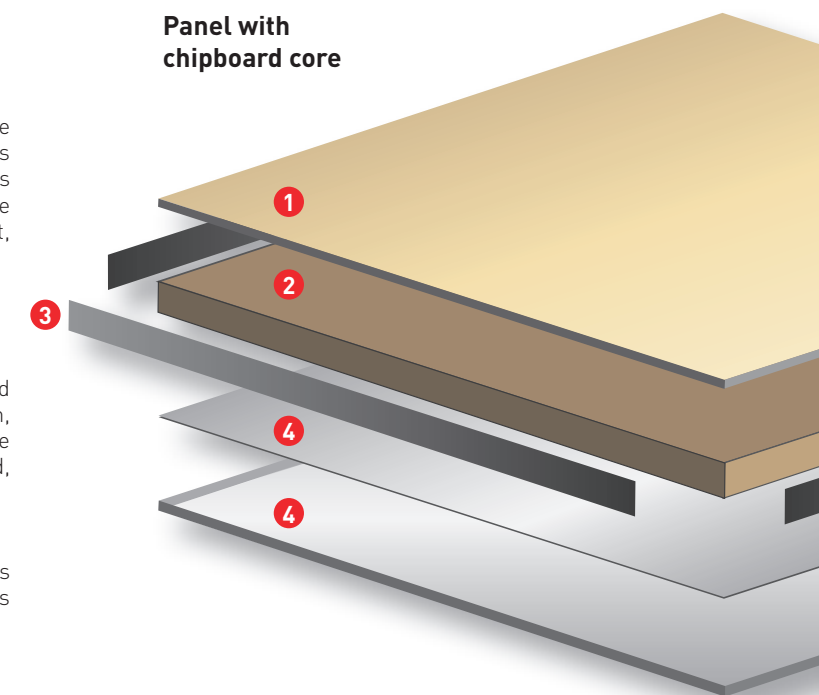
The Panels

The panels are the "living" part of the raised floor, being at the same time the part that ensures the designed resistance to the loads, and that determines the aesthetic characteristics of the environment where it is placed, besides the ease of any movement and repositioning. The execution precision and the attention to details make Nesite panels the reference product in the market, for maximum customer satisfaction.

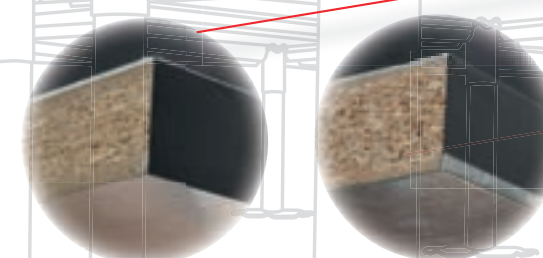
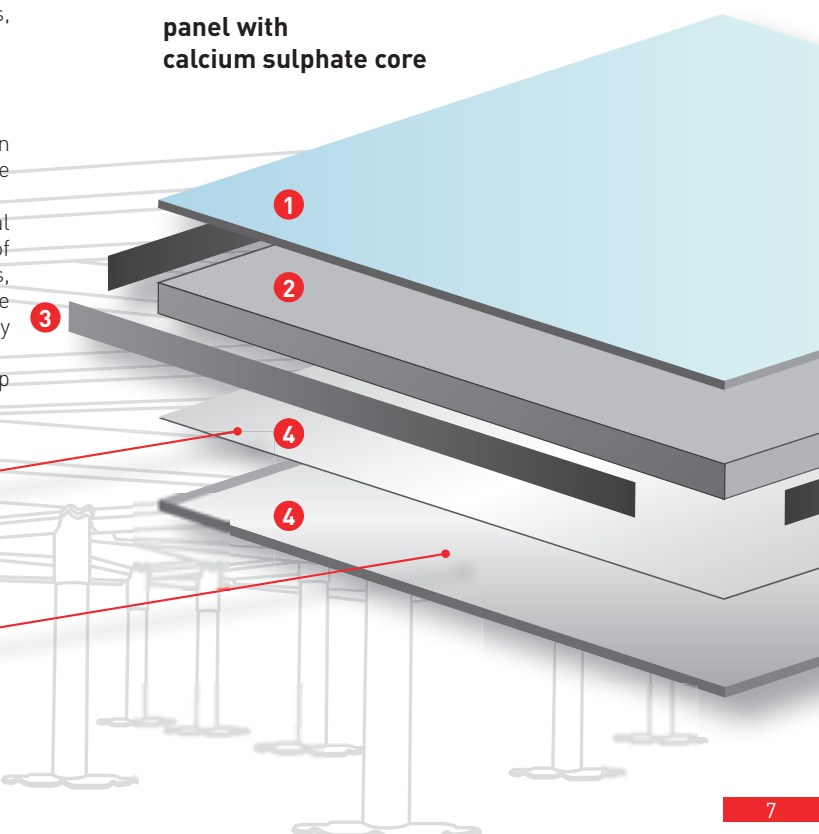
Each panel consists of four elements:

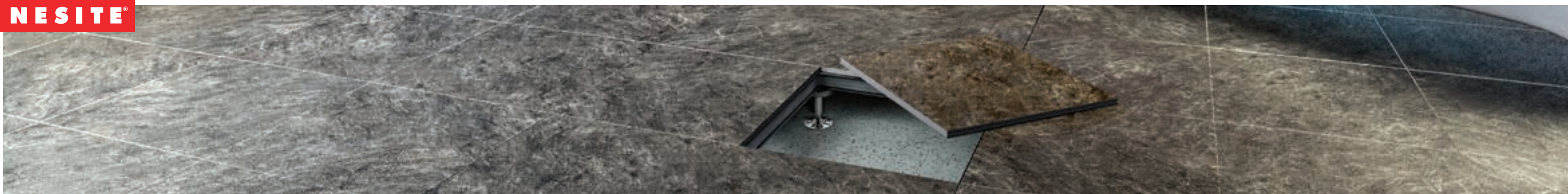
- 1 Top finish**
this is the element that characterizes the appearance of the finished floor. Available in various materials (plastic laminate, PVC, linoleum, stoneware, marble and granites, natural parquet, etc.) and in an infinite combination of colours to meet any technical and aesthetic need, depending on the intended use
- 2 Core of the panel**
it's the structure the panel is made of, which determines the characteristics of resistance to loads and resistance to fire. It can be made from various kinds of materials and in various thicknesses
- 3 Edge Trim**
in high mechanical and thermal resistant, self-extinguishing and anti-squeak plastic material. It covers the perimeter of the panel, protecting it from accidental hits; it guarantees a perfect junction between the panels, for an easy handling and repositioning
- 4 Bottom covering**
 - Anti-dust primer (only for calcium sulphate panels)
 - Aluminium sheet with a thickness of 0.05mm, able to guarantee an excellent barrier against humidity and electrical continuity to the bottom of the panels
 - Steel tray with a nominal thickness of 0.5 mm, to ensure the electrical continuity to the panels, a perfect barrier against moisture and, most of all, to improve the mechanical resistance characteristics of the panels, thanks to the turned-up peripheral edge which greatly increases the strength performance compared to the simple metal sheet used by many competitors
 - Sheet of plastic laminate, used as a counterbalance for panels with top finishing composed of some specific types of plastic laminate

Panel with
chipboard core



panel with
calcium sulphate core





CORES



Result of a high-quality technology, Nesite panels are constructed using structural cores of different materials and thicknesses, offering a wide range of combinations to **meet any mechanical, fire resistance, sound and electrical insulation, hygro-sensitivity needs.**

CHIPBOARD CORE

Its light weight, low cost, ease of processing, simple and economical installation, combined with good technical characteristics, make the chipboard core the most requested and used by the market. The element that defines the mechanical qualities of this material is its density. Nesite uses exclusively **E1-class** chipboard (according to EN 717-2) for its panels, with very low formaldehyde emissions and high density: **730 kg/m³**.

It is available in two thicknesses:

28 mm combined with superior coatings of resilient type (plastic laminate, vinyl, linoleum, rubber); it is used in premises where the load capacity of the floor required or the height of the raised floor required is not very high.

38 mm is the most often required thickness and therefore the most widespread of the Nesite panels; thanks to its good performance characteristics, it can be combined with any kind of surface finish (from resilient coatings to stoneware, natural parquet, stainless steel, etc.).

MAIN FEATURES:

- Good footfall comfort
- Sufficient acoustic comfort
- Good load capacity
- Fire resistance: 30 min.
- Less suitable for installation in areas with high humidity
- The panels are interchangeable and easy to remove
- Wide range of top finishes

- 1 - Top finish
- 2 - Core
- 3 - Edge trim
- 4 - Bottom finish



CALCIUM SULPHATE CORE

This type of core is considered the **top of the range** and is used in cases where a floor with high performance is required, in terms of mechanical strength, fire resistance, thermal insulation, sound insulation and limited hygro-sensitivity. It consists of a monolithic layer of calcium sulphate, anhydrite-reinforced, with recycled cellulose fibres, **reaction to fire in class 0** (class A1 according to EN 13501-1).

The main feature that ensures high performance is the density. NESITE uses calcium sulphate with a density of **1600 kg/m³**, the highest available on the market. The panels produced with this type of core represent the best combination of technical quality and performance, with unmatched characteristics in terms of **thermal insulation** in case of fire, resulting in maximum safety for those who live or work in that environment, and sound insulation. The density and the particular molecular conformation ensure a high reduction of footfall noise and of inter-lying crossing. It can be combined with any kind of top finish.

MAIN FEATURES:

- Very high footfall comfort
- High acoustic comfort
- Excellent load capacity
- Excellent fire resistance: 60 min
- Less sensitive to moisture
- Panels are interchangeable and easy to remove
- Unlimited range of possible top finishes



- 1 - Top finish
- 2 - Core
- 3 - Edge trim
- 4 - Bottom finish

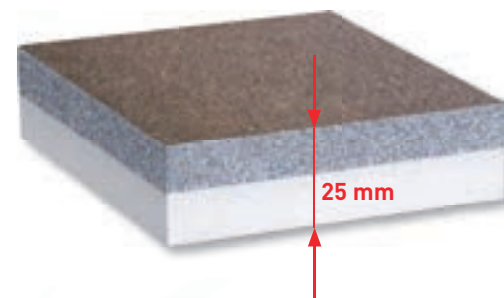


SINTERED MATERIAL CORE

Nesite, always ready to provide solutions for the possible installation requirements of the raised floor, also offers a further innovative solution for all the installations where the chipboard or calcium sulphate panels may encounter application limits or incompatibility due to the high relative humidity in the environment or for outdoor solutions (e.g. pool edges, shopping centers arcades, marine environments, etc.).

For these applications, Nesite proposes an evolution of the raised floor: the **Twin Floor**.

This type of panel is composed of a core of inert and inorganic material, with a very high density (2200 kg/m³), sintered at very high temperatures. Thermal shock resistant, non-absorbent (0,05% water absorption), frost-proof. Reaction to fire of the panel core: class 0 (class A1 according to EN13501-1). Coupled to a porcelain stoneware or stone top finish.

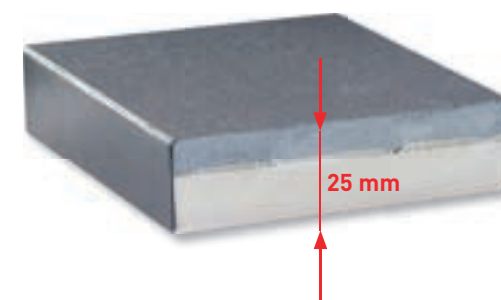


APPLICATIONS

Wherever the chipboard or calcium sulphate panels find incompatibility with a possible presence of water, or when a high resistance to loads in a reduced thickness is required.

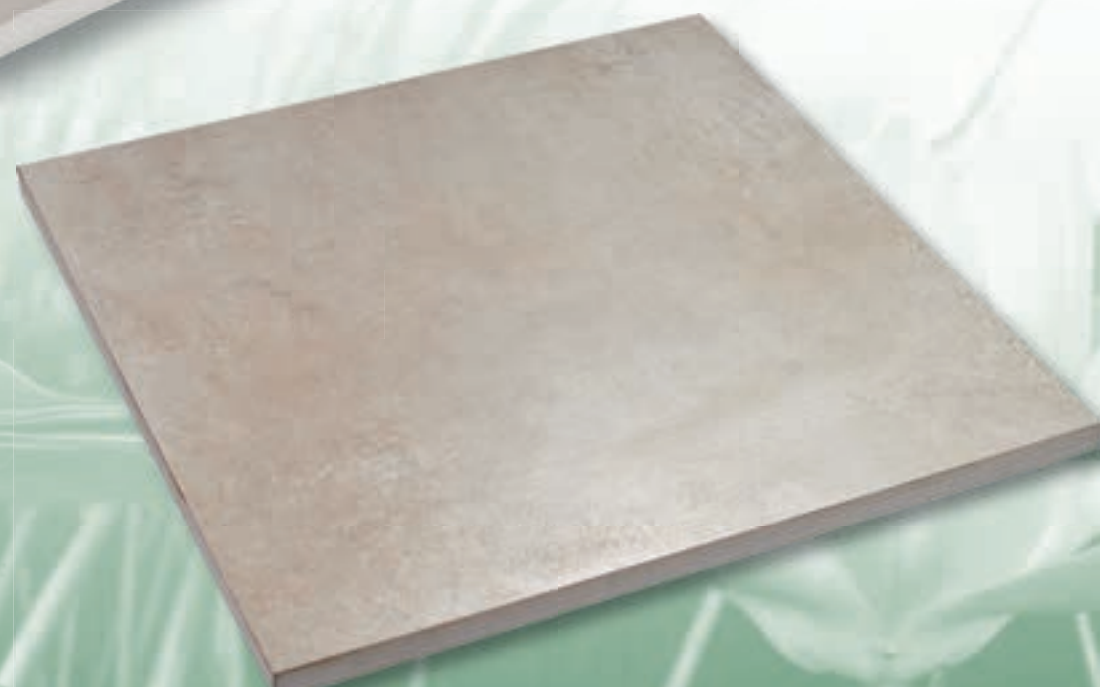
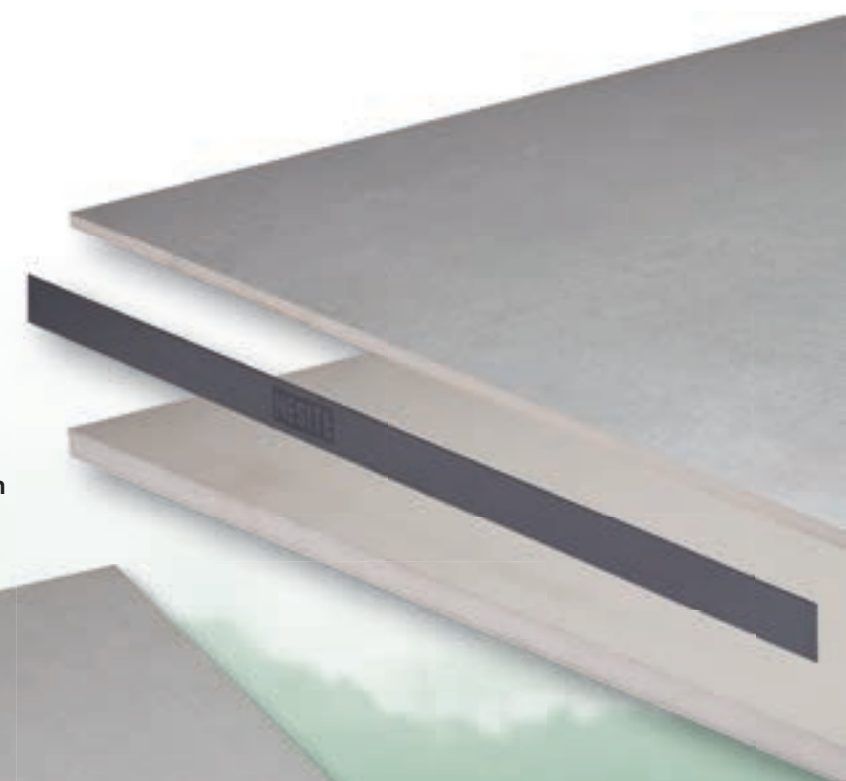
Thanks to the excellent characteristics of mechanical strength and especially to the extremely low hygro-sensitivity, the Twin Floor can be installed in outdoor areas in direct contact with the atmospheric agents, for a guarantee of unparalleled durability and long life. For said outdoor applications, Twinfloor panels are produced with a particular "truncated cone" perimeter process in order to ensure a facilitated drainage of rainwater.

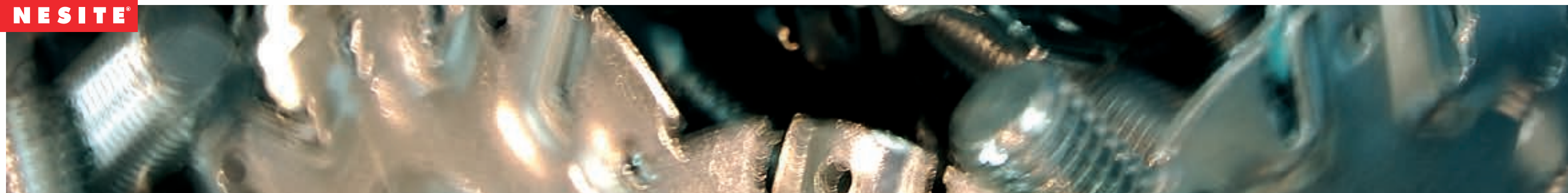
In the indoor version, the panels with plastic perimeter edge and porcelain stoneware coating meet the Class 1 (class Bfl-s1 according to EN 13050-1) reaction to fire.



MAIN FEATURES:

- High footfall comfort
- Excellent acoustic comfort
- Excellent load capacity
- Reduced thickness: 25 mm only, including the coating in porcelain stoneware.
- Completely fireproof: it does not participate in the combustion
- Completely waterproof: insensitive to moisture
- Excellent for outdoor installations
- Upper finish in porcelain stoneware or stone





STRUCTURES

The structure is the essential component in any raised floor system.

Due to its long experience, NESITE today proposes structures of high precision, capable of ensuring high load capacity and an excellent durability.

The Nesite Access Floor System is now completed by the offer of 3 different types of structure, fully in galvanized steel.

The NESITE columns are available in a wide range of heights, in order to satisfy any requirement, compensating for any unevenness of the floor they are laid on through a precise adjustment of the height of at least +/- 25mm.

The sound-absorbing gaskets on the head of the column are

made of antistatic or conductive plastics. These, besides allowing an optimal positioning of the panels with the dedicated spacer stops, attenuate the impact noise thanks to the properties of the materials.

MAIN FEATURES:

- **No height limit required**
- **Great fine adjustment: at least +/- 25mm**
- **Corrosion resistant**
- **High load resistance**
- **Easy installation**



MPS

General features:

Structure without stringers
Maximum lightness and stability
Pedestal glued to the slab

Applications:

offices, data centers, control rooms, laboratories, renovations and any other use having light or medium load requirements.

MPM

General features:

Structure with medium resistance, open cross-section stringers
Perfect for small data centers.
Ideal for new or renovated offices.

Applications: offices, data centers, control rooms, laboratories, renovations and any other use having medium load requirements.

MPH

General features:

Structure with high resistance, closed cross-section stringers
Ideal for data centers and technical rooms.
Ideal for medium to large offices.
Specific for CAT scan rooms and laboratories.

Applications: offices, data centers, control rooms, laboratories, renovations and any other use having medium or heavy load requirements.

MPL

General features:

Substructure with light, open cross-section stringers that strengthen the system horizontally, ensuring stability between the columns even without gluing them to the sub-floor.
It guarantees the electrical continuity of the structure.

Applications: offices, data centers, control rooms, laboratories, renovations and any other use having light or medium load requirements.

MPM-ER

General features:

Structure characterized by no threaded part exposed.
Height adjustment obtained simply by tightening/untightening a hex screw in the center of the head.
Mechanical properties are equivalent to the MPM.

Applications: offices, data centers, control rooms, laboratories, renovations and any other use having medium load requirements.

BPC

General features:

The BPC structure is indicated for very high loads and is suitable for any type of panel. It consists of vertically adjustable columns and closed cross-section stringers, L 1800 and 550 mm.

Applications: offices, data centers, control rooms, laboratories, renovations and any other use having heavy load requirements.

STRINGERS

The stringers of the MP structures are in hot galvanized steel sheet (**Sendzimir**) with snap-on system.

The snap-on system ensures a firm grip of the stringer on the head of the pedestal, thus avoiding any noise even in the presence of dynamic radial loads, and making the screwing of the stringers to the head optional. The purpose of the stringers is to strengthen the system in both horizontal and vertical direction.





THE 12825 STANDARD

The EN12825 standard establishes the guidelines concerning the main characteristics of raised floor. Nesite always provides designers with a product whose specifications meet 100% of the EN 12825 European standard indications, without sacrificing the creative possibilities of each individual implementation. The elements that Nesite pays special attention to, and which have always been object of appreciation and consideration are:

Load capacity

The raised floor is designed and manufactured to provide mechanical resistance, high stability and comfort. With the various possible combinations between the type of structure and panel, NESITE is able to meet the most demanding structural specifications, giving a solution to all load issues provided by the legislation without any deformation or failure.

Items class	
Class	Ultimate load
1	≥ 4 kN
2	≥ 6 kN
3	≥ 8 kN
4	≥ 9 kN
5	≥ 10 kN
6	≥ 12 kN



Sound insulation

The ability to mitigate the footfall noise, along with the ability to isolate the environment from the noise transmitted by air, are among the main qualities of raised floors. Nesite has always been careful to ensure its products the highest comfort and sound isolation in accordance with UNI EN ISO 10848-2: 2006 and thanks to the use of materials with high compositional characteristics, it reaches outstanding levels of noise reduction.

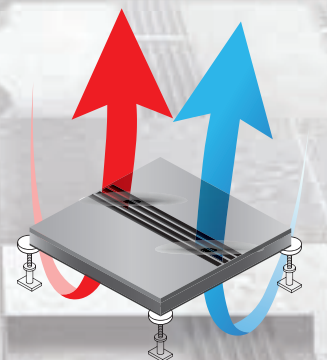
To further increase the level of acoustic comfort, Nesite proposes the Acoustic Pad solution: this simple yet effective option enhances the already excellent noise-reduction qualities of the system, further reducing the spread of noise in the environment, thus ensuring maximum comfort.



Fire performance

Decisive for the physical safety of people who live and work on a raised floor, this is the quality that must be guaranteed in terms of fire reaction (participation in combustion) and fire resistance (mechanical resistance, smoke emission and thermal insulation).

Both are determined by the characteristics of each component and / or material that constitutes the raised floor. The parameter of the fire resistance indicates the quality and the behaviour of the raised floor in case of fire and determines the values that guarantee, above all, the safety for people within that environment. The strict test conditions that determine this parameter identify the minimum time in which one of the conditions measured (decrease of the declared resistance to loads, emission of smoke between the panels and temperature rise of the floor in the presence of fire underneath it) becomes evident. Nesite raised floors fully meet the fire resistance required by the regulations.



Underfloor air distribution

The gap that is generated between the supporting surface of the structure and the bottom of the panels forms a plenum used for the underfloor air-conditioning distribution, a system that has always been used in data centers or server rooms, where specific cooling needs must be guaranteed because of the equipment installed; this system can also be used in office buildings, in particular in open spaces and highly reconfigurable ones, where raised floors are particularly suited for housing cables and installations of any kind in the space underneath the floor. To avoid loss of pressure of the airflow blown into the subfloor, it is essential that the panels are produced with the utmost precision, in order to ensure the best joint between the panels, while remaining perfectly movable and repositionable.



WHY CHOOSING NESITE?

The choice of a raised floor must be guided by parameters of performance and safety that cannot be evaded. The use of the most modern production technologies, of materials with very high features and a strict quality control of the finished product, make NESITE the ideal partner for the choice of a raised floor. A partner who can provide a complete service: from the first proposal and the possible technical advice, to the laying of the last panel. Quality of service, performance and security guaranteed by over 50 years of experience worldwide.



Competence and passion

The quality of the product depends not only on the materials used but on a number of factors, such as the technical competence, the ability to understand the specific needs of the customer and to provide a reliable technical solution to any request, the knowledge and care in working the finished product: all of these make the Nesite proposals a reference in the world market. The prestigious installations of the highest aesthetic and architectural value realized over the years confirm this point. A talented production reached by NESITE thanks to the great teamwork of a close-knit staff, led by high professionalism and passion.



Know How

Choosing a Nesite raised floor means taking benefit from the experience of a leading company, committed to the highest quality of its products for more than 50 years. An experience that is evident in every aspect: from the technical advice based on the result of real experiences, to the management of the various issues of product management onsite. From the development of the Italian service industry in the 60s to the big and prestigious international projects of our time such as the ITCC in Riyadh, NESITE has always known, and still knows, how to manage your projects with the reliability that only a competent partner can provide.



Security

The raised floor Nesite meets the requirements of EN12825 regulation, with particular attention to the load capacity and to the fire reaction and resistance. Security is definitely the primary objective that NESITE aims at, when proposing its raised floors. An indispensable plus.



Quality



NESITE produces in Italy, following the strictest criteria. The construction precision, the excellence of the materials and the meticulous attention to details are the elements that determine the unrivalled technical and aesthetic characteristics of the product and give customers an excellent result. From this, depend the ease of installation, the accuracy of the joints between the panels, the high aesthetic result, the acoustic comfort, the safety in case of fire: elements that have always been the subject of deep research by NESITE.

Creativeness



NESITE can examine even the most original requests to implement a raised floor. Experience means security of the proposal, and NESITE is always available to apply the creativity that often makes the difference. In recent years, NESITE was preferred to other manufacturers primarily in raised floor applications with original technical and aesthetic characteristics, which still must ensure reliability and durability. This is made possible by the irrefutable experience, professionalism and expertise of the NESITE team.

Style



The raised floor NESITE is made in Italy and designed with cutting-edge stylistic solutions to meet the most demanding technical and aesthetic requests for the most prestigious projects.

ACOUSTIC INSULATION

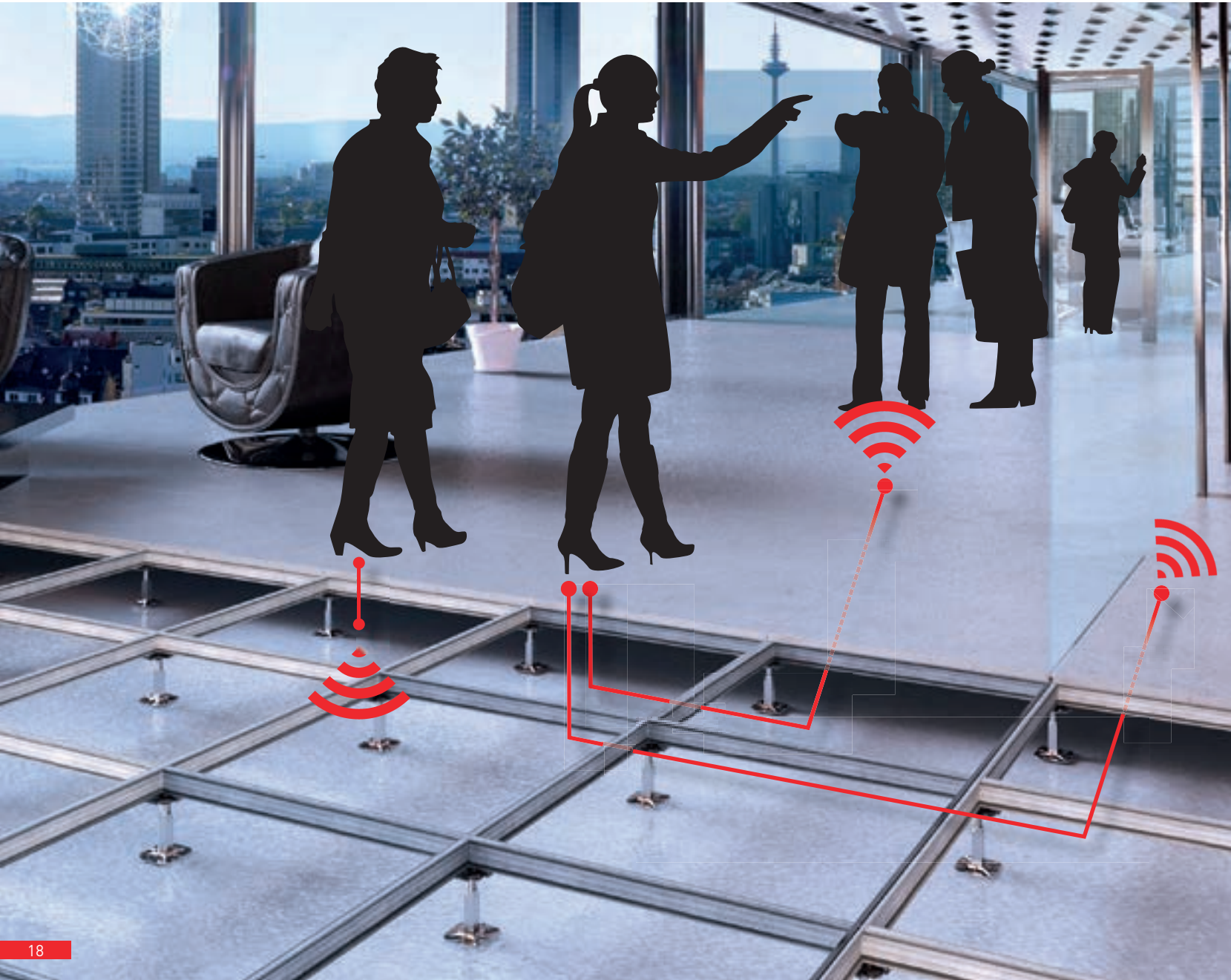
The various combinations of panel, structure and top finish type provide the widest range of solutions to meet the most diverse requirements of sound insulation.

The **UNI EN ISO 10848-2: 2006** regulation describes the measurement methods used when testing the acoustic transmission to one or more components in the building, in the different directions. The measurement methods described in the standard relate to light building components, such as raised floors. The transmission of noise from one environment to another can take place simultaneously both through the sample under test and a possible gap (under the floor).

The measured parameters may be used for comparing different products, or to establish specific requirements, or for the insertion in the models and in the prediction calculations.

In order to give a solution to the problem with simplicity, ease of installation and efficiency, Nesite proposes the installation of an acoustic pad at the base of the structure.

A simple and inexpensive solution that maximizes the sound insulation performances of the raised floor Nesite, significantly lessening the footfall noise and thus increasing the comfort in the room.



ELECTRICAL RESISTANCE

Static electricity is a natural phenomenon which often occurs in the form of electric shock when a person get in contact with metallic parts (ex. handles) after walking on non-conductive surfaces. This type of electric discharge is not detrimental to the majority of people, yet it causes a discomfort that may have negative consequences on the efficiency of the people and the equipment within the environment. For these reasons, the phenomenon of static electricity must be controlled and avoided as much as possible.

The electric charge of static electricity is generated by the movement of substances and by their separation. The resulting voltage depends on the humidity of the air. Dry air can cause an increase in static electricity while humid air lowers its generation. Some electronic components are extremely sensitive to such events, and a discharge of only 30V is enough to destroy them or cause serious malfunctions (unacceptable for computers, medical devices, etc.).

The control and the dispersion of static electricity can be achieved through the choice of appropriate materials, even if they cannot be eliminated totally. However, the conditions to avoid any danger to persons and objects must be guaranteed. To prevent static electricity from building up, becoming large enough to cause an electric discharge, it must be discharged to the ground at the very moment it is generated. For this purpose, the raised floor must ensure the least possible resistance to electrostatic discharge.

The quality of this performance depends exclusively on the characteristics of the material of the raised floor system.

The electrical resistance is measured in ohms.

Table of the electrical characteristics of materials.



Surface resistivity (ohm)	Electric Qualities	Typology	Notes
$10^{12} \div 10^{15}$	-	Insulating	Materials not suitable for static control. They are characterized by a HIGH Electrical RESISTANCE, i.e. LOW CONDUCTIVITY This group is composed of many products based on PVC and textiles.
10^{11}	Sufficient	Physiological antistatic	Materials that do not generate nor accumulate significant electrostatic charge. Characterized by a speed of dissipation too slow for many industrial applications. Compatible to the human body.
10^{10}			
10^9	Good	Dissipative antistatic	HIGH CONDUCTIVITY (Low Resistance) Materials with high electrostatic control, suitable in many fields of application.
10^8			
10^7			
10^6			
10^5	Very good	Conductive	VERY HIGH CONDUCTIVITY (VERY LOW RESISTANCE).
10^4			
10^3			
10^2	Maximum	Highly conductive	Generally metallic.
10^1			

FIRE INSULATION MEANS SAFETY

Fire safety standard EN 13501

In case of fire under the floor, it is vital to ensure the time necessary for the safe evacuation from the affected area. The time of escape for the people inside the building depends entirely on the quality of the materials chosen for the construction of the building.

For this reason, the EN 13501 European standard gives particular importance to the fire resistance of raised floors, i.e. its ability to ensure the maintenance of its performance in the presence of fire, for a predetermined time.

In case of fire, the raised floor system must not, in any way, participate in the combustion; the main parameters for the correct evaluation of its resistance to fire are:

- **R: the resistance, the ability of the system to retain its declared mechanical strength.**
- **E: the emission, the ability to avoid outputs of fumes, vapours, hot gases and flames between the panels**
- **I: the thermal insulation, the ability to insulate the temperature of the upper face of the system as long as possible**

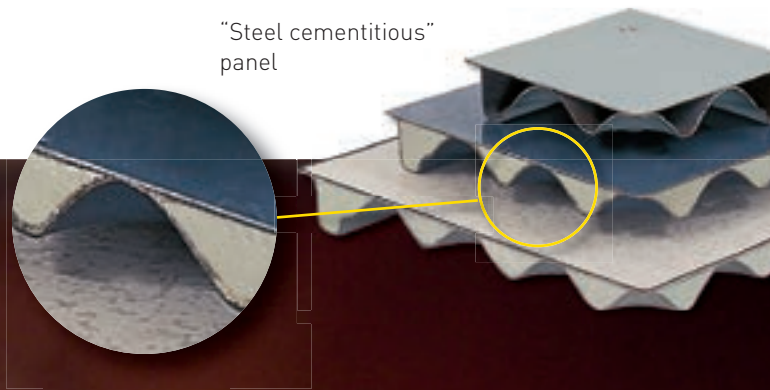
The parameters R and I depend on the quality of the materials used in composing the system while the "E" factor depends on the precision of the panels during the production: Nesite's 50-year experience is a guarantee of quality for this.

One of the most commonly used raised floor systems in the world is surely the one encapsulated in steel sheet, i.e., a chipboard or calcium sulphate core totally wrapped by a steel sheet of a varying thickness; among these, there is the Steel Cementitious version, with cementitious core.

These panels, by their shape, allow the contact between the metal sheet of the lower part and the walking surface. In case of fire under the floor, the flames touching the bottom of the panel will rapidly increase the temperature of the metal sheet of which it is composed. As steel is a very good heat conductor, and being the panel totally wrapped by metal sheet, the high temperature of the bottom of the floor (even above 1000 ° C) will reach in a few tens of seconds the top surface. In these conditions, the evacuation of the areas involved in the fire becomes really problematic and, in more complex cases, impossible.

Calcium sulphate panel
34 mm thick

"Steel cementitious"
panel



NESITE AND GREEN BUILDING

LEED is a certification program developed by the **U.S. Green Building Council** (USGBC) to classify a building (both commercial and residential) according to its level of eco-sustainability.

The goal of the LEED is to promote an approach to sustainability by recognizing the performance of buildings in terms of energy and water savings, reduction of CO2 emissions, improvement of the ecological quality of the interior materials and resources used, quality of the project and site selection.

A LEED-certified building acquires therefore a higher value on the market, as it is a building with great benefits, first of all the cost savings related to energy consumption.

The system is based on the allocation of 'credits' for each requirement; the sum of the credits is the level of certification: PLATINUM (more than 80 points scored by the building), GOLD (60-69 points), SILVER (50-59 points), CERTIFIED (40-49 points).

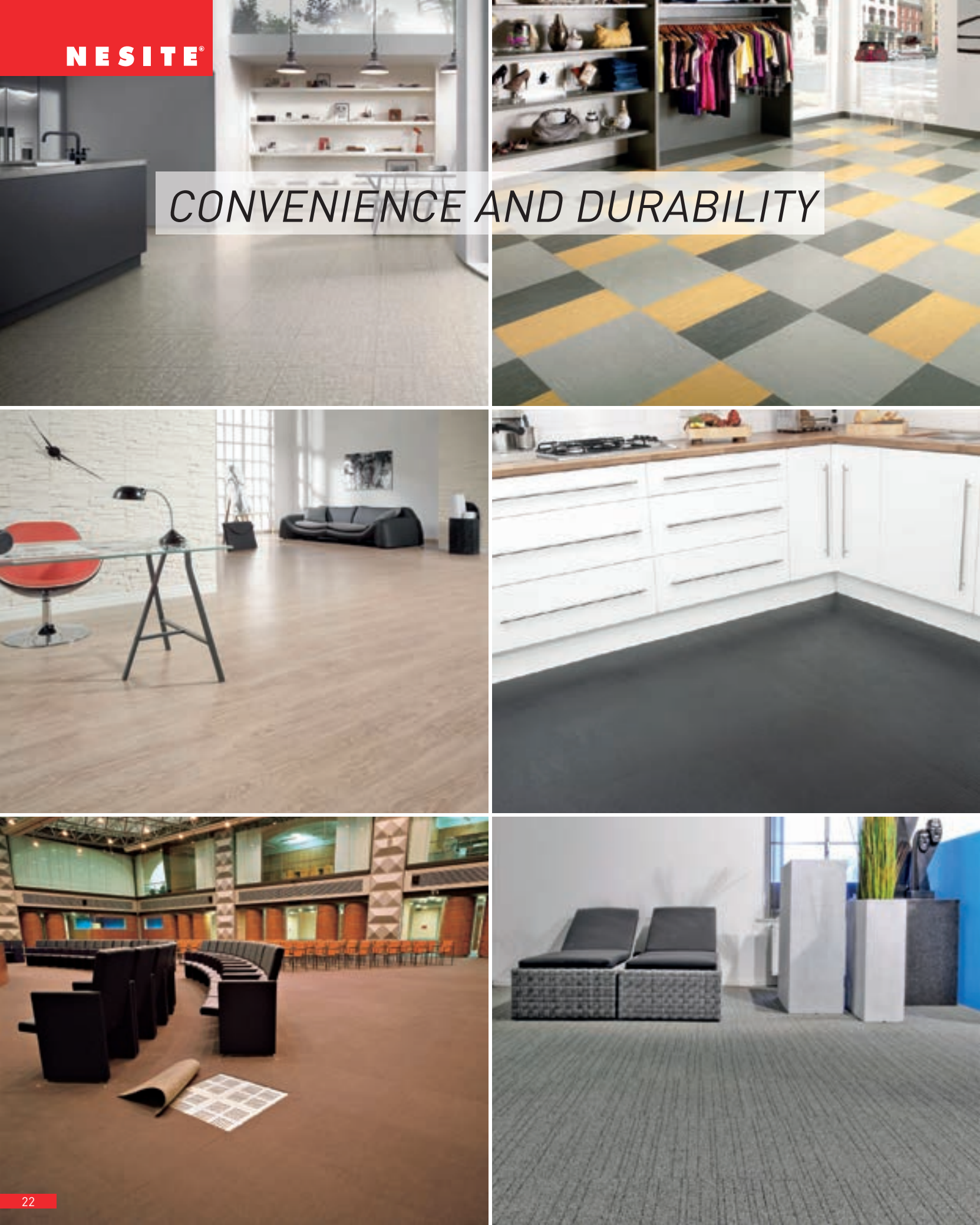
Another environmental assessment protocol is the **BREEAM** (BRE Environmental Assessment Method), which establishes the environmental certification class of the building through a scoring system similar to the LEED.

The **raised floor** is an element that gives a huge surplus value to the buildings for the benefits it offers and its use contributes to obtain LEED credits.

Nesite, thanks to the quality of its products made according to environmental sustainability criteria and with certified materials, has contributed to the certification of some prestigious projects such as the Christchurch Civic Building in New Zealand (certified Leed Platinum) and the Wilberg Atrium in Norway (certified Breeam Class A).

Choosing Nesite floors means choosing a **product that complies** with the LEED/BREEAM requirements and especially interacting with a company able to adequately respond to the requests of those involved in a LEED or BREEAM project; our team of experts is able to offer a **mapping** of the products in order to determine the credits that will contribute to the final score of the building

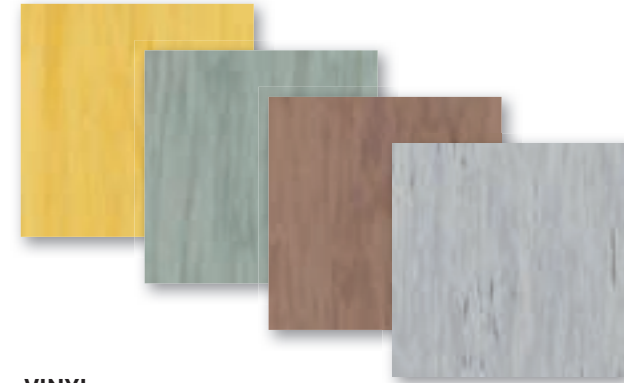
CONVENIENCE AND DURABILITY



FINISHES

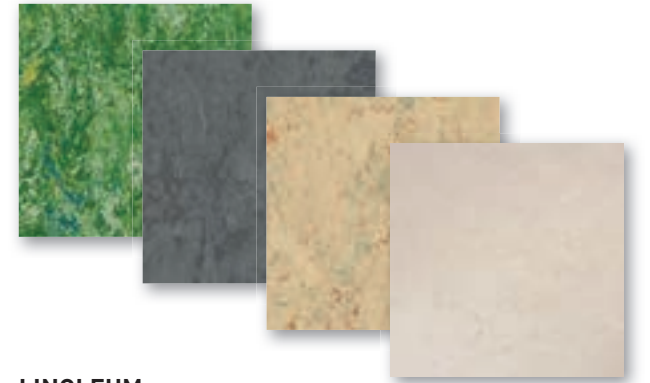
Wide range of quality finishes to fit the spirit of each project.
Versatility, refinement and elegance of materials to enhance the beauty of any environment.

Resilient materials



VINYL

Flexible tile obtained from polyvinyl chloride, inert fillers, plasticizers and dyes mixed at different production cycles. Suitable for offices with medium traffic level, hospitals, data centers, equipment rooms, TV studios, etc. **Available in anti-static, static-dissipative or conductive version, offering a wide range of colours and finishes.**



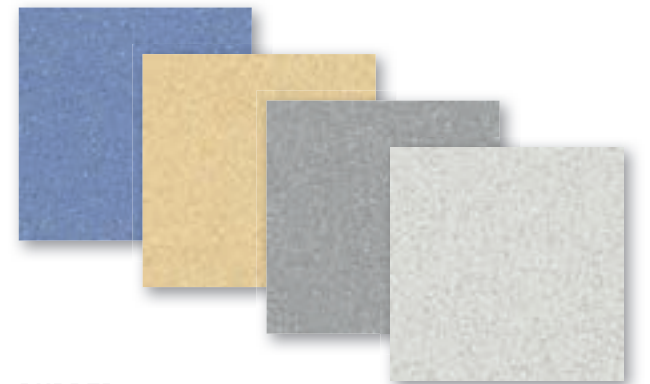
LINOLEUM

Natural product composed of a mixture of linseed oil, resin, cork flour, wood flour, mineral fillers, dying pigments, calendered on natural jute canvas. Suitable for offices with medium traffic level, banks, utility rooms; **also available in acoustic version.**

PLASTIC MATERIAL

PLASTIC LAMINATE

This is a rigid sheet consisting of sheets of Kraft paper impregnated with phenolic resin and a decorative melamine layer. Thanks to the **good resistance to abrasion**, is indicated for offices with medium to high level of traffic, utility rooms and computer rooms.



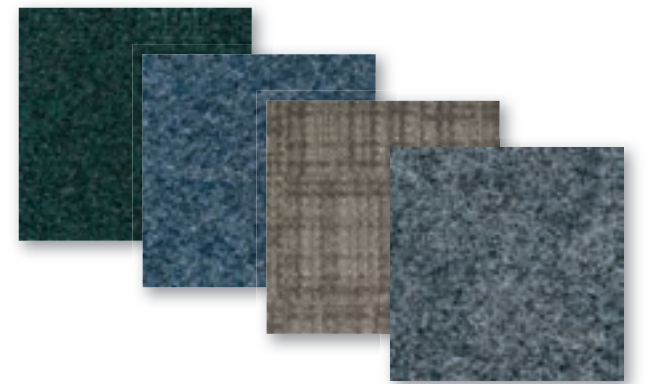
RUBBER

Flexible material made of a homogeneous mixture of synthetic rubber, reinforcing mineral charges and natural color pigments. Due to its **high resistance**, this is a material suitable for offices with high traffic level, halls, airports, call centers, etc.

TEXTILE MATERIALS

CARPET

Loose-laying carpet 50x50 cm standard size (to be laid on the panels with aluminium or steel cover). Available also glued to the panel, in size 60x60 cm. **With good sound absorption**, it is suitable for offices with medium traffic level, halls, airports, call centers.



VALUE AND VERSATILITY

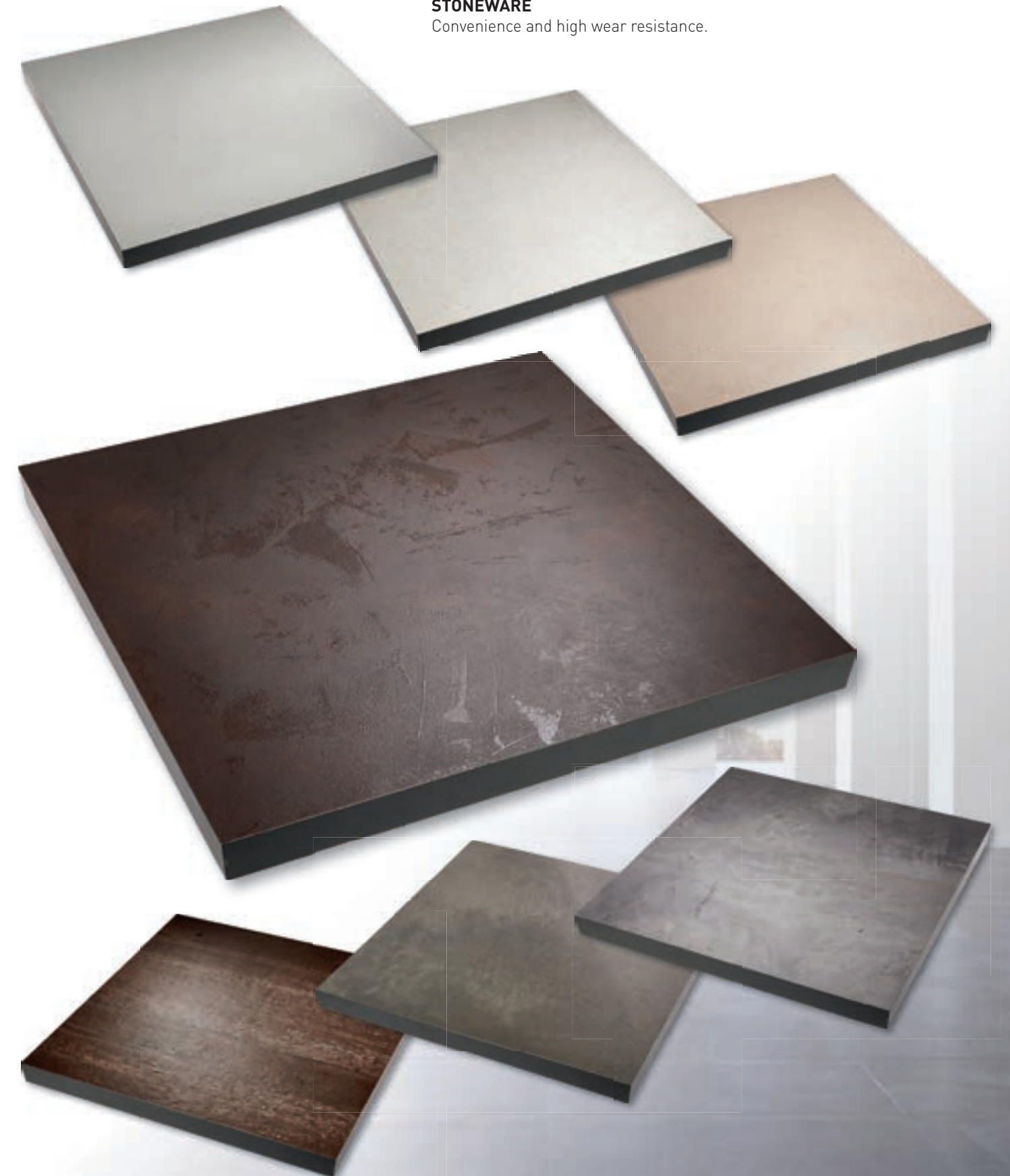


STONEWARE FINISHES

Combining functionality and aesthetics: this is the goal of the **High Class** line by Nesite, offering particularly elegant and modern solutions without giving up on the technical performance and flexibility that the raised floor offers.

STONEWARE

Convenience and high wear resistance.



NATURAL PRESTIGE

MARBLE FINISHES

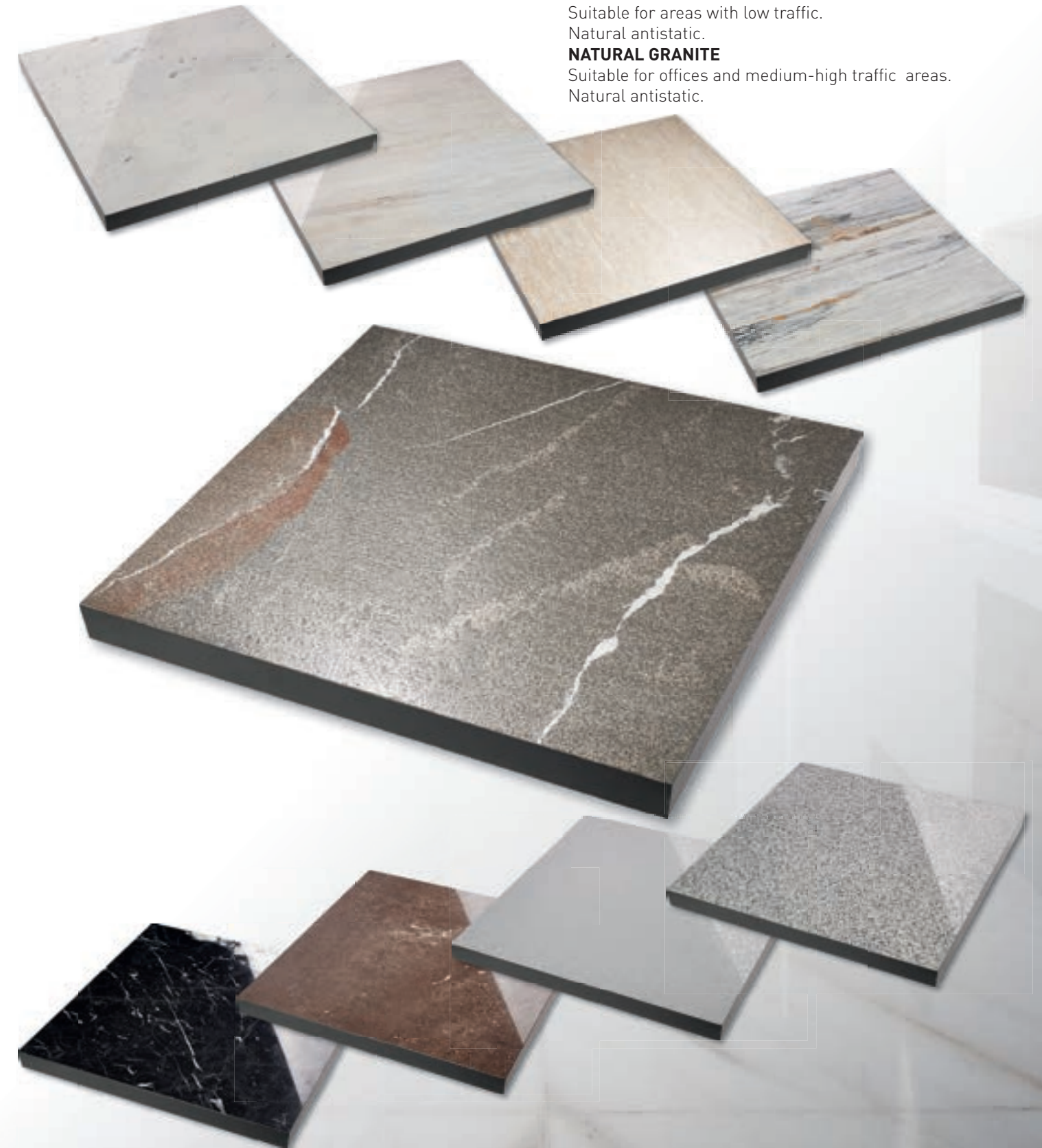
For years Nesite distinguishes itself for the production of raised floor with natural materials such as stones, marbles and granites. In our factory, the top covering is bonded to the core and the combination is then rectified, edge trimmed and bevelled: the result is a panel with dimensions that respect the modularity of the raised floor and allow an easy handling, thanks to the lateral plastic protection.

NATURAL MARBLE

Suitable for areas with low traffic.
Natural antistatic.

NATURAL GRANITE

Suitable for offices and medium-high traffic areas.
Natural antistatic.



ELEGANCE AND WARMTH

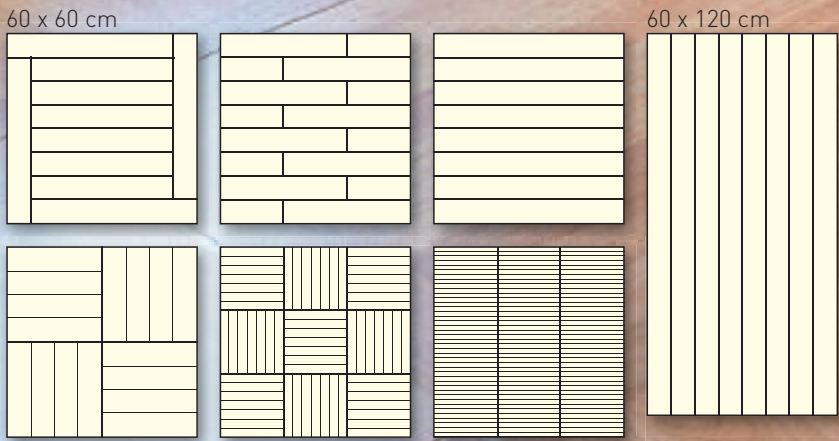
PARQUET

Wood finishes

High Class presents the most elegant and precious raised floor: the natural parquet.

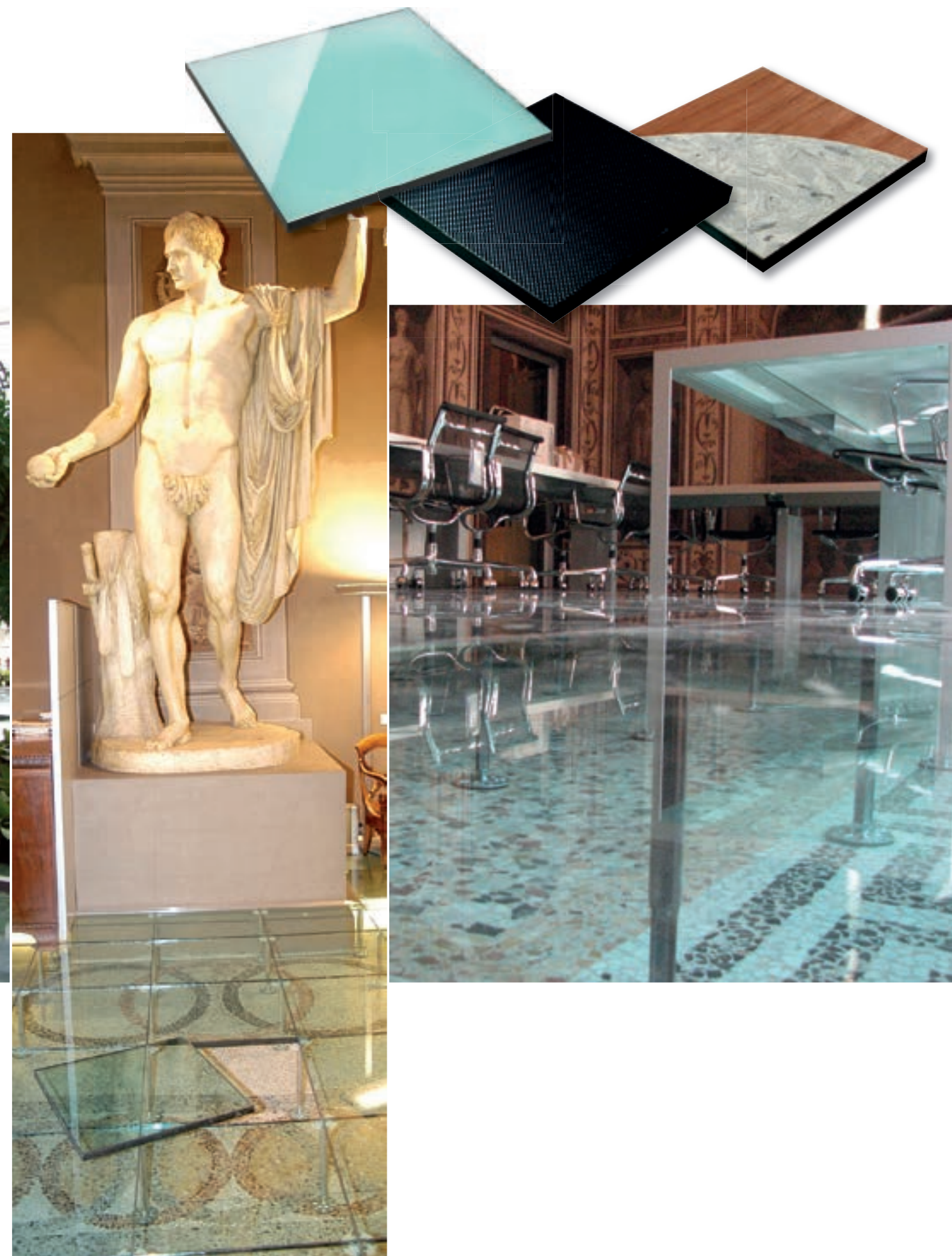
NATURAL PARQUET

Wood is a natural material subject by nature to variations in size and colour according to the varying environmental conditions. Nesite provides a parquet raised floor with UV treatment, a clear coat that protects the wood while giving a greater wear resistance. Available in various types of wood (oak, iroko, doussie, cherry, etc.) and in multiple formats and types, wood is the material that most of all gives warmth and elegance to your projects.



PASSWORD: CREATIVITY

The Nesite staff has the necessary experience to satisfy any aesthetic desire, even of the most demanding customers. The expertise and outstanding quality of the team, in terms of creativity, provide solutions of the highest reliability.





TWIN FLOOR, THE RAISED FLOOR SYSTEM FOR OUTDOOR

As part of a continuous technological research related to the implementation of the new architectural requirements and to the greater sensitivity of the market towards the outdoor features, Nesite has designed a new system by combining design and aesthetic novelty with the best technical features of the current market.

The raised floor for outdoor Twin Floor was born to improve the building's thermal and acoustic classification as well as to contain the maintenance costs of the property.

Twin floor, perfect for indoor, excellent for outdoor.

Twin
FLOOR



TWIN FLOOR CHARACTERISTICS

Advantages

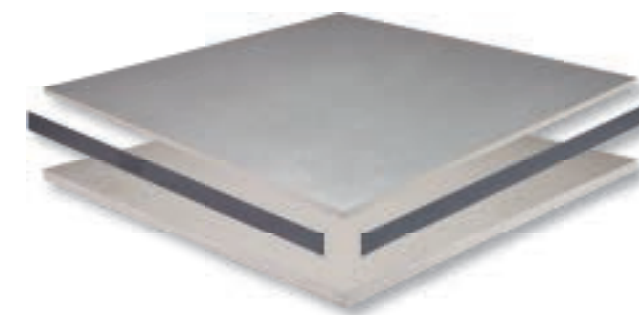
Twin Floor allows to:

- Easily and quickly inspect the underfloor space in case of repairs to the insulating sheath and consequently save costs of demolition and refurbishment of slabs and finishing materials, as well as save time during repair intervention
- Improve the thermal insulation, thanks to the space between the raised floor and the slab
- Ventilate the underfloor space with consequent elimination of damp and of radon gas.

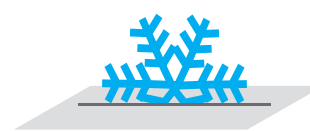
- Drain the rain water, making the floor dry and safe immediately.
- Lay the floor faster than with traditional floor and consequent time saving. The absence of floor settling time eliminates the risk of water infiltration into the slab.
- Avoid making the screed above the insulating sheath and gluing the finishing materials, with consequent money saving.
- Avoid using chemical and concrete adhesives, thanks to its ecological components.

Technical description

The panel is composed of a non-slip porcelain stoneware top tile and a bottom tile core with reinforcement function. The two layers form a 600x600 mm panel with total thickness 25 mm, and are coupled together by using special adhesives chosen and selected for their strength, elasticity and durability over time and weathering.



Twin
FLOOR



Frost-proof



Water resistant



For outdoor



TWIN FLOOR

TWIN FLOOR panel is characterized by the coupling of the stoneware or stone top finish by a specific adhesive with a reinforcing 15 mm thick layer made of a homogeneous and fiber-reinforced structural core, whose density is 2200 Kg/m3. This support is completely made of recycled components that are pressed and sintered at very high temperatures; the result is a product with very high mechanical performance that ensures dimensional stability against damp, water and temperature changes. The panel will thus have a total thickness of 25 mm. It can be made with bevel or with a slight chamfer. Ideal for public spaces' outdoor atria, high traffic or particularly valuable terraces, gazebo. It can be also applied (dry laid) directly on gravel or grass.

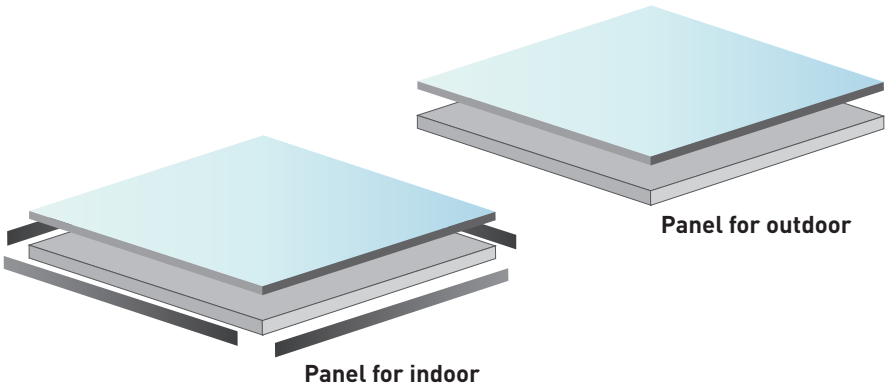
Technical data

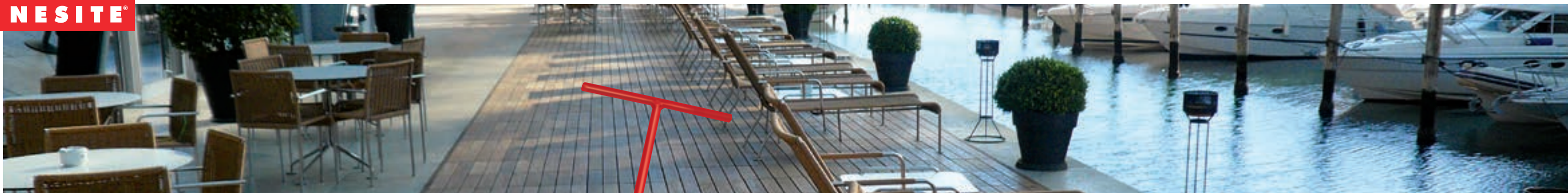
Fire reaction class	Bfl-S1
Electrical resistance	2x109 ohm
Normalized Acoustic insulation D _{nf,w}	51 dB
Acoustic pressure level L _{nf,w}	62 dB
Density	2200Kg./m³
Dimensional change (after 24 hours immersion in water)	0%
Weight of panel 60x60	±21 Kg (stoneware finish)
Thermal conductivity λ	0,3621 W/mK
Thermal resistance R	0,0641 m2K/W
Dynamic stiffness	379,34 MN/m³
Concentrated load	class 2 A2 (MPL)
Distributed load	1600 kg./m²
Frost resistance	Excellent
Thermal shock resistance	Excellent



For both outdoor and indoor versions the panel composition is the same, except for the perimetral protection edge trim. Panels for indoor, in fact, are produced with high mechanical and thermal resistance edge trim, essential to protect the ceramic from accidental impact during their first placement or subsequent handling and ensures their perfect contact; panels for outdoor, instead, do not have this protecting edge for two main reasons:

- The high temperatures reached for direct sun exposure
- The need of leaving a space of few mm between panels to allow efficient water drainage (rain or other water)





TWIN FLOOR STRUCTURE FOR OUTDOOR

The substructure suitable for outdoor is made by plastic pedestals available in two main versions:

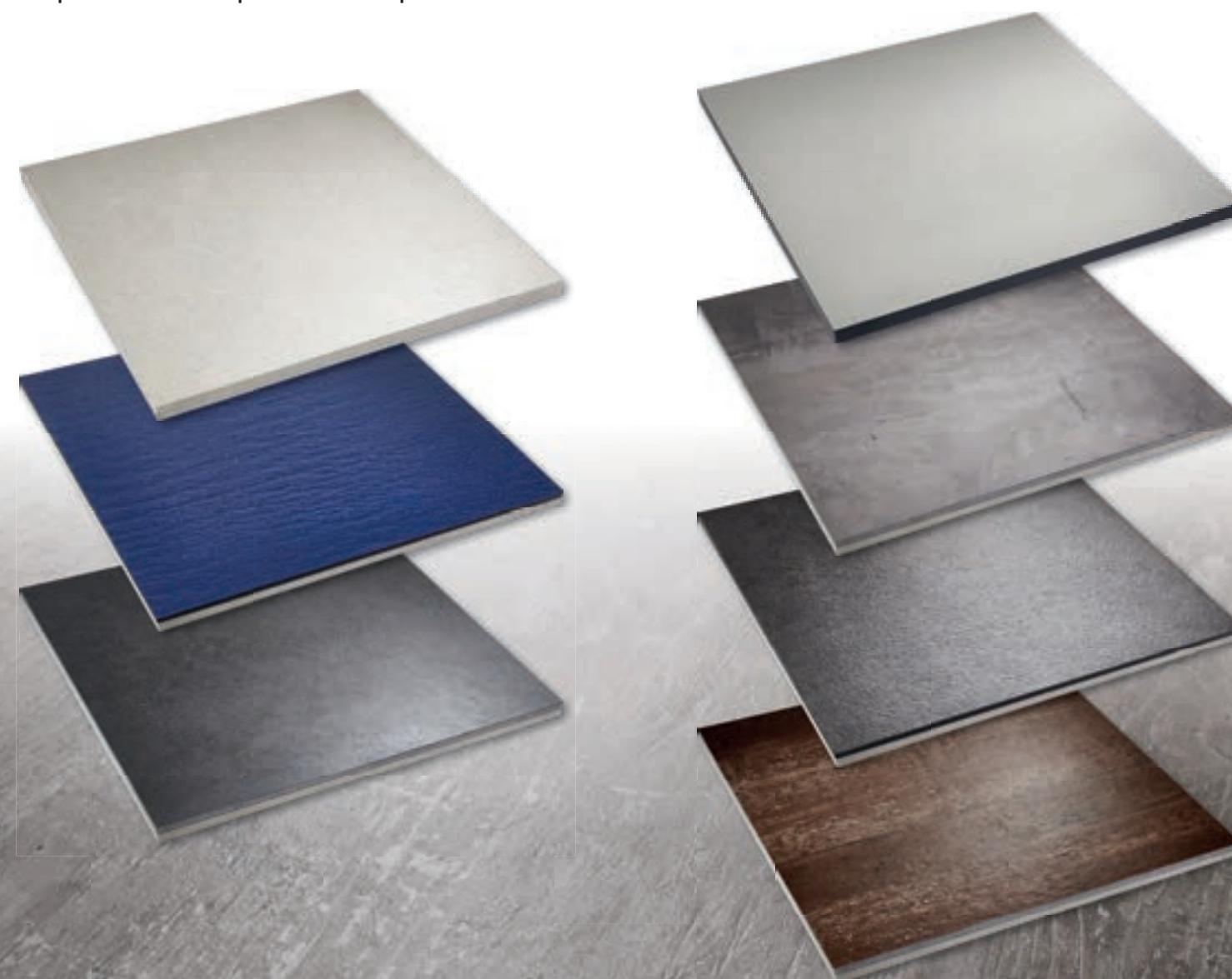
- **Non-adjustable supports**, composed of a single piece with fixed height from 12 mm to 19 mm. They are characterized by four spacers that allow to realize the gap between the panels. The plastic material is particularly resistant to thermal shock, sour and basic solutions and weather agents.
- **Adjustable supports**, composed of a jack head threaded in its bottom part. The base is concave on the bottom and has a non-slip surface. The side holes allow water draining. The ring nut allows an easy and perfect height regulation and ensures a perfect final leveling of the floor.



TWIN FLOOR FINISHES AND SAFETY

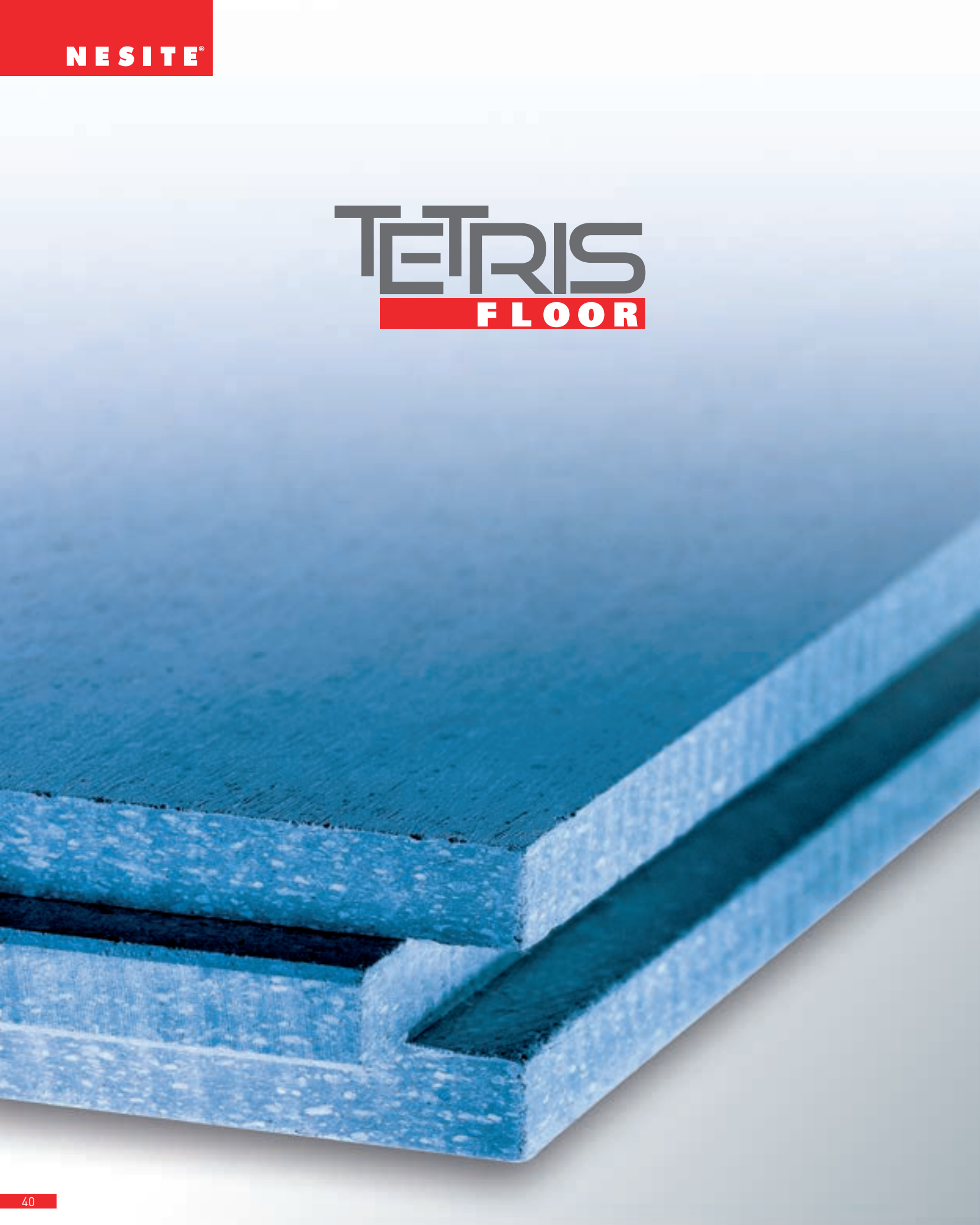
Twin Floor can be realized with any type of porcelain stoneware. The top covering can be natural, polished, or honed, but also hammered or structured when it must ensure maximum slip resistance and safety to the outdoor raised floor, even in case it is wet.

It is possible to realize special sizes on request.



TETRIS

FLOOR



TETRIS FLOOR, THE TONGUE AND GROOVE HOLLOW FLOOR SYSTEM

This system offers excellent mechanical resistance thanks to the tongue and groove system which gives a **monolithic effect** to the raised floor. With the appropriate accessories it can allow partial access to subfloor's installations. It can be covered with any type of finish, loose-lay or glued.

Field of applications: Tetris Floor can be installed in commercial or residential areas, ensuring convenience and performance.





TETRIS FLOOR CHARACTERISTICS



Safety from the floor upwards

Alongside the visual effect, two important aspects are increasingly becoming the focus of attention in designing activities: functionality and safety.

Those are the requirements that Tetris Floor flooring systems perfectly implements in many respects. Tetris Floor is a tongue and groove hollow floor system, made up of calcium sulphate, a material classified throughout Europe as class A1, incombustible according to UNI EN 13501-1, (fire reaction), complying at least with the fire protection requirement REI 30 according to UNI EN 13501-2 (fire resistance).



Resistance and flexibility

The mechanical resistance and the durability are essential characteristics of Tetris Floor. Those aspects are taken into consideration from the very beginning of the Tetris Floor creation: the unique production process determines the homogenous structure of the material, which is then highly compressed up to 1500 kg/m³.

Tetris Floor is available in various thicknesses and dimensions.

The panels are supplied to the site ready-to-lay; a primer coat applied in the factory protects the boards during transportation and laying, ensuring its full scratch resistance from the beginning.



Total comfort!

The dry installation of Tetris Floor offers numerous advantages; indeed, no drying time is necessary and therefore its installation does not cause further damp in the building. Consequently, it is possible to save several weeks during construction time.

The good sound insulation is another of Tetris Floor's surplus values, that makes it the right choice when you pay much attention to the acoustic of places.

With appropriate accessories (adhesive, transition profiles and inspection frames), the installation becomes very easy.

Flexibility, installation efficiency, mechanical resistance and sound insulation: all the advantages that will make you appreciate the Tetris Floor system.



TETRIS FLOOR

Main Characteristics:

- Rapid and efficient installation thanks to board dimensions 1200 x 600 mm and to dry laying
- Great mechanical resistance thanks to the compactness of the tongue and groove system
- Surface evenness thanks to the panels' calibrated thickness and the tongue and groove structure
- Minimum fire resistance class REI 30 (acc. to UNI EN 13501-2).
- Possibility to erect dry walls (stud partition systems) directly on the Tetris Floor, as well as to install ramps, steps and terracing.
- Inspection frames and transition profiles can be supplied upon request. Holes for inspection, electrical boxes and the like can be done at any point in the floor.

Application areas:

Offices, kitchens, toilets, and areas where sealing and loose-lay coverings are necessary.

Board dimensions:

1200x600 mm e 600x600 mm

Standard board thickness:

25, 28, 32 e 38 mm

TETRIS
FLOOR



LooseLayKer®

The innovative system of loose-laying dry floor LOOSE-LAY-KER, the smart and modern solution to the need to enrich a floor.

Easy, quick, clean and of immediate use: LOOSE-LAY-KER is a system for **dry laying ceramic tiles** completely free one with the other, realized with the highest dimensional accuracy in order to guarantee the **perfect interchangeability** between the individual tiles.

LOOSE-LAY-KER can be applied with ease and speed on any type of existing floor: raised, industrial or traditional.

No use of adhesives or chemical treatments, LOOSE-LAY-KER is just easily laid down on the surface to be coated or renew; that allows absence of unpleasant odors in the environment and of halts that might create trouble for people and any activities carried out in the place to renovate. Thus, **it is ready for walking immediately** after the laying of the last tile.

No particular joint between the tiles: extreme simplicity for the first installation and for the possible removal of each single tile for displacements or replacements.

No halt in the productivity of activities carried out in the place.

No final grouting between the tiles.

LOOSE-LAY-KER is **versatile and flexible** as it is possible to install, replace, remove it and reinstall it again with ease and speed as many times as you wish.

Saving costs and time.

LOOSE-LAY-KER respects and preserves the characteristics, aesthetic qualities and value (eg.: events in historic buildings) of the floor on which it is placed.

Flexibility in RENOVATION.

The customer can choose among an unlimited range of colors and types of finish of the stoneware, that is finely rectified and beveled with the precision required to ensure the highest aesthetic quality.

Plastic edge trim in different colors.

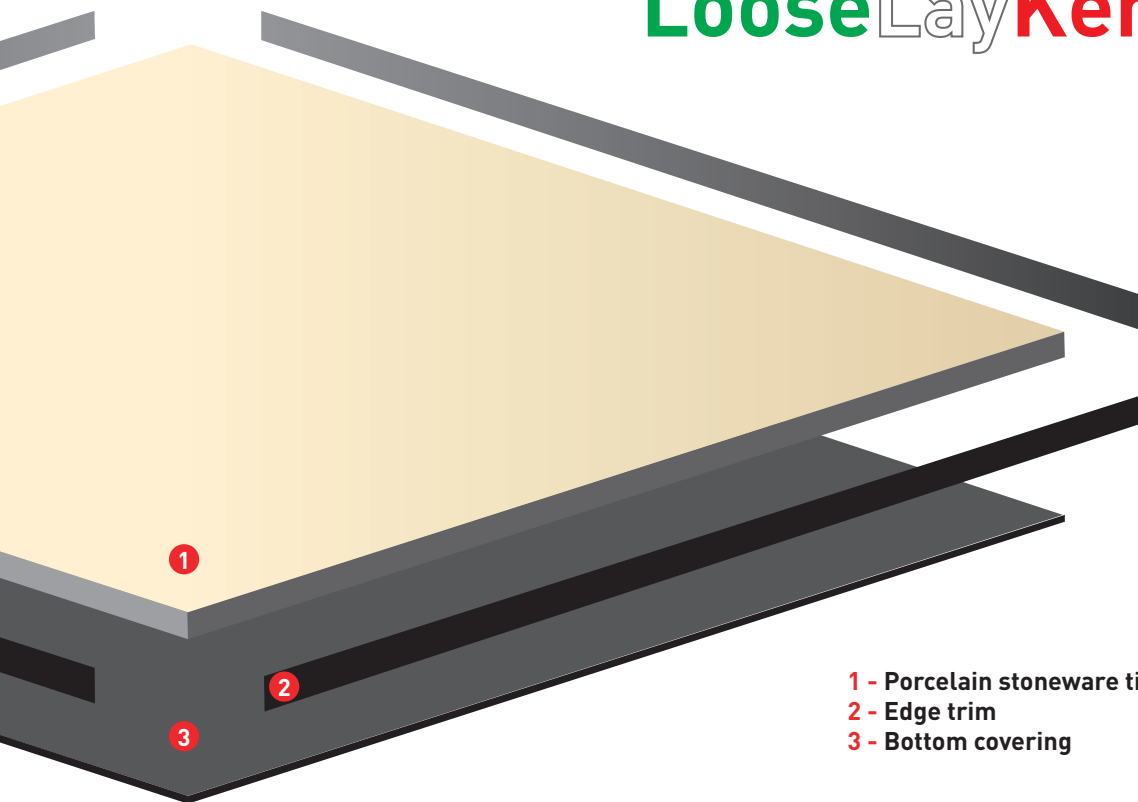
Applications:

Ideal for covering raised floors made of panels without top finish or to renovate old raised floors with deteriorated or obsolete finishes (resilient and carpeting), LOOSE-LAY-KER is suitable for applications in commercial, residential or public buildings.

- Ideal for **renovation of old floors**
- Ideal for **museum areas** or for events in historic buildings where you have to ensure resistance to high traffic while protecting the historical and artistic value of the existing floor
- Ideal for exhibition stands



LooseLayKer®



- 1 - Porcelain stoneware tile
- 2 - Edge trim
- 3 - Bottom covering

The LOOSE-LAY-KER system has a special bottom covering, consisting of a layer of expanded polyethylene of high density (1900-2000 kg/m³) filled with closed-cell mineral fibers, chemically cross-linked. Self-extinguishing (according to ISO 3795), non-toxic and odorless.

It gives the system LOOSE-LAY-KER the following exclusive features:

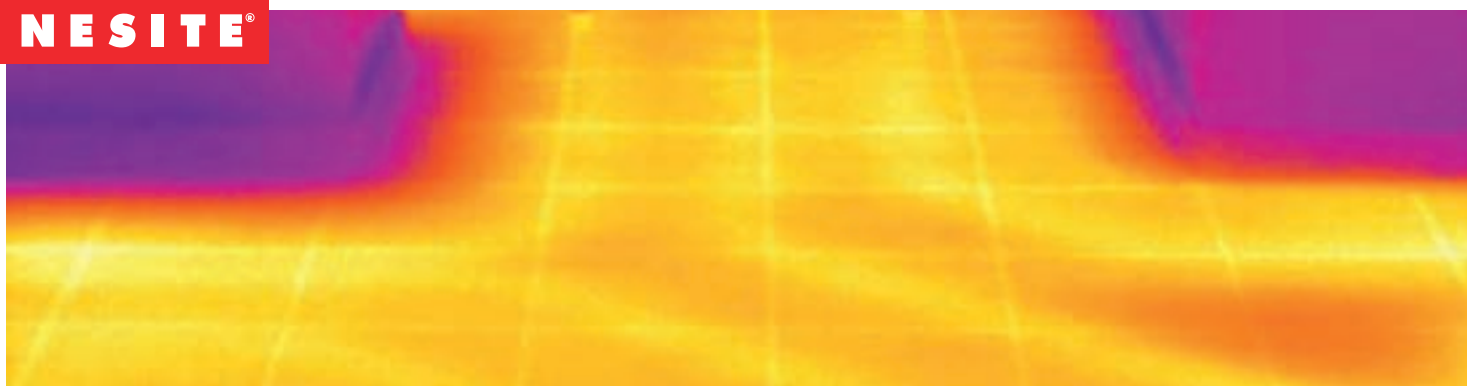
- Easy, quick and clean **installation**
- **Stable and durable adherence** thanks to the suction effect that is generated when in contact with the below surface, although no adhesive is required nor used
- **Adaptability to the laying surface**: its elasticity allows to absorb any small differences on the below surface without problems of compressibility. That's why it can be laid on any type of existing floor



- **High acoustic comfort**: the bottom cover is constituted by an elastic insulating mass with a molecular composition able to stop any sound wave produced by the material to which it is applied. It guarantees the highest acoustic insulation from noises caused by footfall or by impact. Soundproofing power: 34,4 dB (A)
- **Thermal insulation**: the bottom cover also acts as a thermal insulator between the laying surface and the footfall surface of LOOSE-LAY-KER giving to the new tiles the feeling of warm floor
- **Compactness and resistance**: thanks to the high resistance to static and dynamic (radial) loads and to compression, it does not yield in its thickness even under considerable static loads
- **Impact resistance**: absorbs the impact energy of dynamic loads
- **Removing, reusing and recycling** are easy and always possible
- **Wide range of sizes**: 40x60, 40x80, 45x45, 45x90, 50x50, 50x100, 60x60, 60x30, 60x90, 60x120, 75x75, 80x80, 100x100 cm or other on request.

LooseLayKer: versatile, reversible, an excellent result with ease, speed and flexibility.





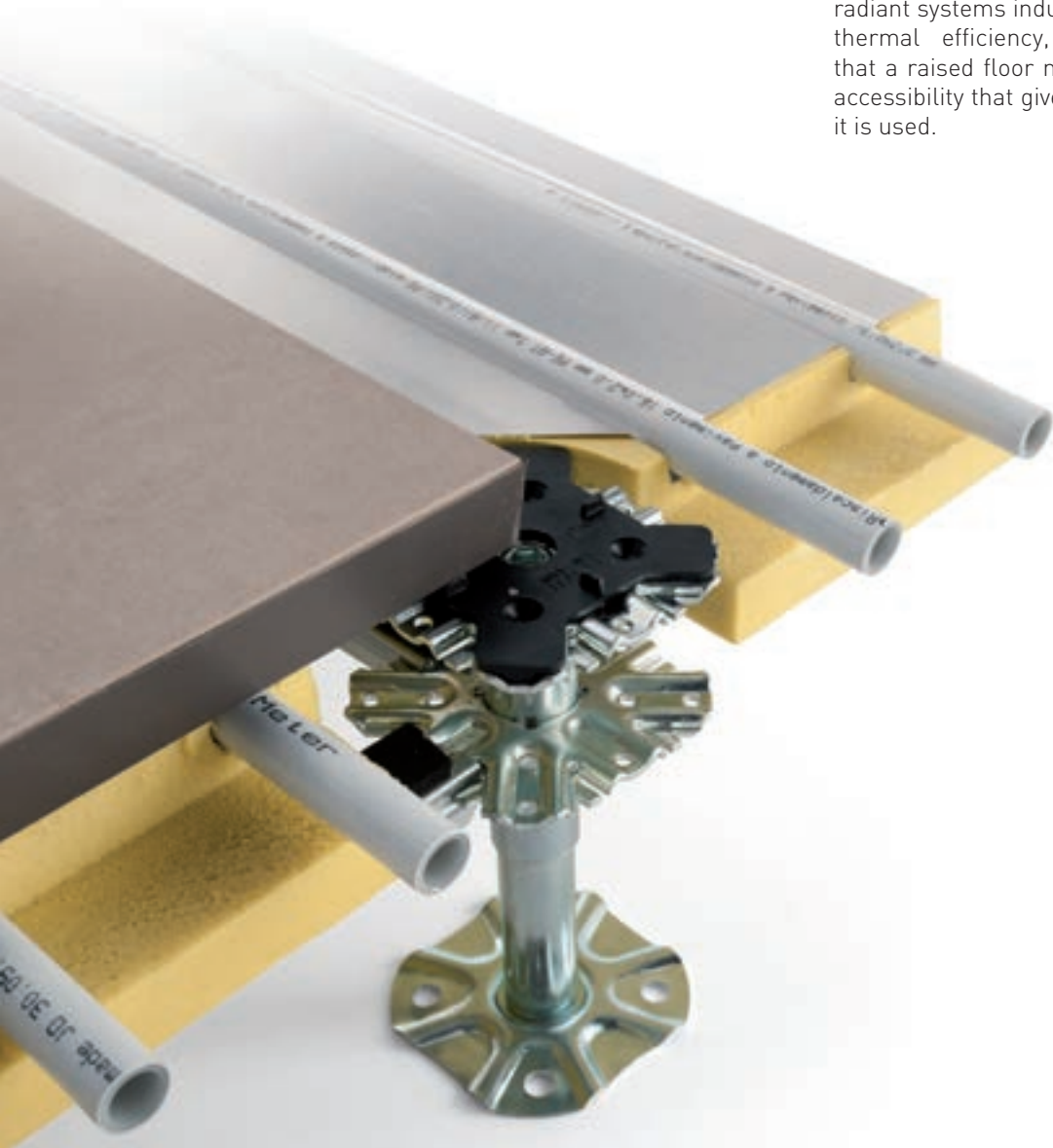
DIFFUSE

THE FULLY ACCESSIBLE RADIANT RAISED FLOOR

Diffuse is a dry radiant raised floor completely accessible which does not require any cement screed for the thermal regulation of the environment where it is installed.

It is lightweight, fast and easy to install, can be immediately walked on and has a very low thermal inertia. This latter feature, due to the reduced mass of dry systems, makes Diffuse very suitable for installation in areas where a quick response is needed both for heating in winter and cooling in summer.

The innovative radiant raised floor Diffuse by Nesite was developed in collaboration with FloorTech – a leader in the radiant systems industry – and designed to optimize the highest thermal efficiency, without sacrificing the characteristics that a raised floor must ensure, that is, its complete and easy accessibility that gives the highest flexibility to the rooms where it is used.



DIFFUSE: HOW IT WORKS

Diffuse is the maximum evolution of radiant raised access floors. It consists of special panels made of a sandwich formed by a patented aluminium shaped radiant body, enclosed between a lower polystyrene insulating layer and the top finish panel.

The special shaping of the aluminum foil allows the perfect fit of a multilayer pipe, therefore enable the highest thermal efficiency. The pipeline supplies the Diffuse system with water at low temperature (up to 35 ° C in heating and 17 ° C in cooling) coming from a thermal plant.

The aluminum foil acts as a diffuser of the thermal power and ensures its uniform distribution. This allows the optimum air-conditioning of the area affected by Diffuse.

Diffuse system can be composed of more than one water circuit (for medium-sized areas up to 12m ²/circuit) that converge to special manifolds with regulation driven by the room's air conditioning control system.

Such composed system is then raised from the concrete slab by a special structure with adjustable height from 14 to 65 cm in order to create a cavity beneath the floor to collect other installations such as wiring, plumbing, telephone, computer and any fresh air system.





MAIN ADVANTAGES OF DIFFUSE SYSTEM



Totally accessible: each panel can be removed and repositioned without any constraint, thus allowing full accessibility to the underfloor in order to make maintenance and /or modifications to the systems (wires, plumbing, telephone and computer) or to vary the configuration of the rooms with the addition or new positioning of work-stations.



The use of the **advanced control system** (optional) allows the perfect thermal regulation of the system; it is able to compensate for abrupt changes of the room's temperature due to outside heat where, for example, there are large glass areas.



Energy saving
(more than 35%).



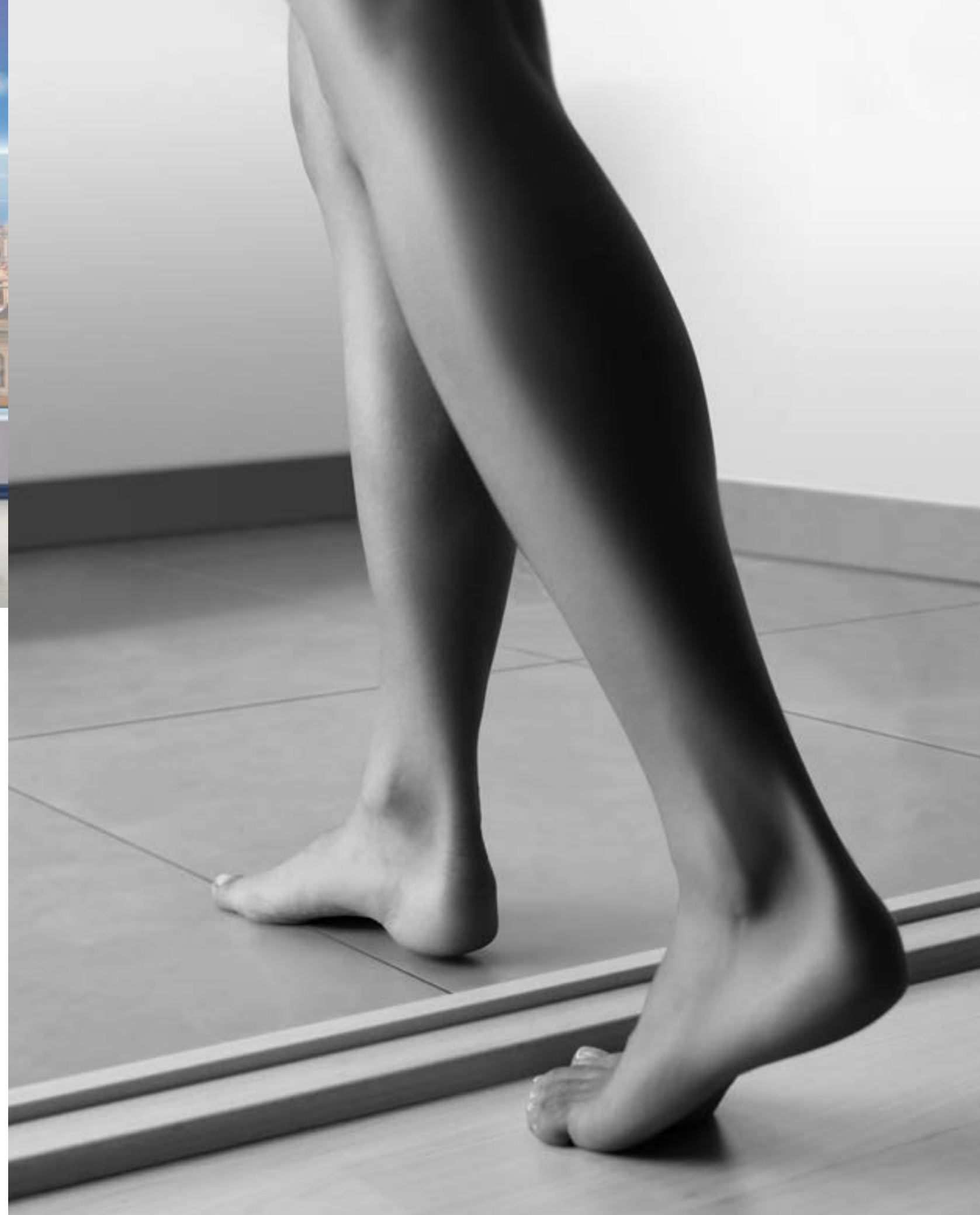
**Optimal distribution
of the temperature**
(uniform heat up to approx. 2,5 m high).



No architectural constraint
in the room (e.g. fan coils or radiators),
for the maximum freedom and purity of design.



No convective motion of air in the room,
no alteration of air quality and reduction
in the amount of dust into the room.





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