



 **STRONG FLOOR**

STEEL CEMENTITIOUS FLOOR

NESITE®

STRONG FLOOR

THE HEAVY
DUTY
ACCESS
FLOOR



STRONG FLOOR

Strong Floor is the steel cementitious floor by Nesite available for standard applications up to extra heavy duty applications.

The panels can be provided in various versions: bare covering, suitable for loose laying carpet or vinyl, or with factory bonded coverings such as antistatic HPL or with static dissipative/conductive vinyl.

The special design of panel ensures high mechanical resistance to comply with all the latest requirements of raised access floor performances.



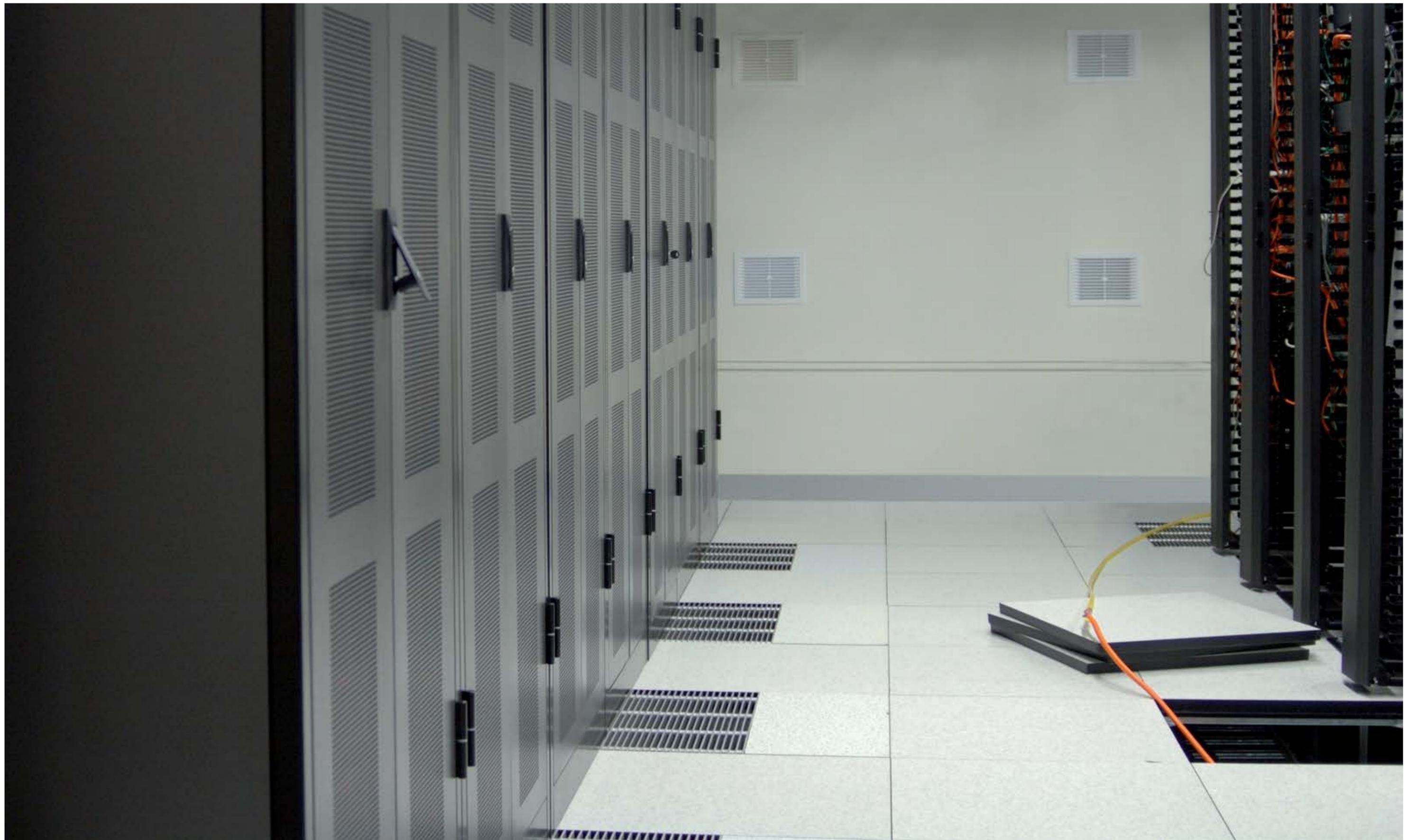
FIELDS OF APPLICATION

Strong Floor, with anti-static, static-dissipative or conductive coverings, is widely used in:

- // computer rooms
- // communication centers
- // control rooms
- // technical rooms
- // data centers
- // power stations
- // offices
- // meeting rooms

Moreover, it can be applied in hospital operation rooms and electronic imaging examination rooms or other electrostatic sensitive industry as military, petrochemical and other projects with high fire performance requirements.





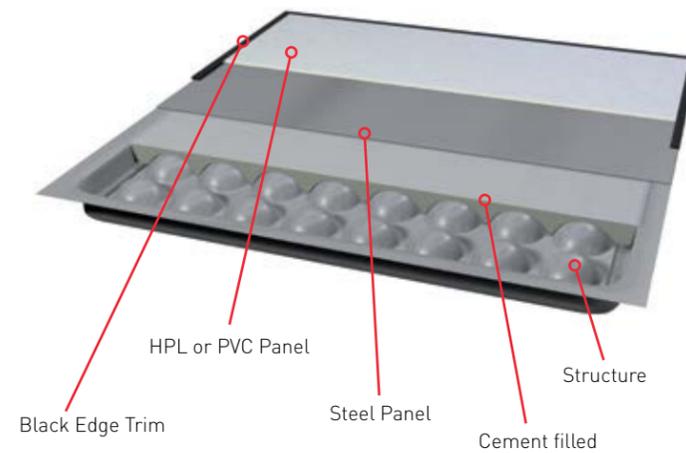
PRODUCT DETAILS

THE PANEL

Strong Floor panel is made of high quality deep stretch coil steel sheet punched, spot-welded and epoxy powder coated.

The panel, available with various thickness of steel sheet according to the mechanical performance required, is filled with foamed cement using a high pressured pump to ensure that cement mix reaches all panel's corner.

It can be with holes on the corners to be locked on die-formed head pedestal or it can be installed on rigid grid made by bolted stringers. Panel dimension is controlled with high precision ensuring the fully interchange between panels and complete access under the floor.



PROPERTIES

Thanks to the special design with reinforced rib and folded edge and with 32 reverse structural embossments Strong Floor improves load capacity along the edge and overall panel durability ensuring maximum reliability.



PRODUCT RANGE

BARE PANEL



Bare panels are suitable for all loose laying coverings to be installed directly on site ensuring high flexibility and giving to the clients freedom to choose the top finishing according to their needs.

HPL PANEL



Strong floor can be supplied with Antistatic HPL which is a material that offers excellent qualities, both functional and aesthetic. Its resistance to wear and vapour, its hygienic properties as well as its versatility make it the ideal material for all applications where strength and design need to be combined.

VYNIL PANEL



Strong Floor is available also with vinyl coverings with different electrical properties to minimize or eliminate the risk of Electro Static Discharge (ESD). It is essential that the correct product is selected for the intended application (static-dissipative or conductive).

BARE PANEL

Bare panel is characterized by corner-lock holes and bare top steel sheet suitable for loose laying coverings as carpet, vinyl or rubber.

Bare panel can be corner locked to pedestal with steel die formed head or with steel flat head that guarantees high stability to the system even without stringers.

Bare panel is powder coated in an epoxy paint finish that guarantees anti corrosion protection.



HPL PANEL

HPL panel is characterized by anti-wear and antistatic HPL (high pressure laminate) factory bonded, 1.2 or 1.5 mm thickness. HPL panel can be corner locked to pedestal head or installed by gravity on substructure with connecting bolted stringers. HPL panel can be with conductive pvc edge trim or without edge trim.

High pressure laminate is used in all computer room applications as control rooms, technical rooms, data centers and communications centers.



VYNIL PANEL

Vinyl panel is characterized by static dissipative or conductive PVC factory bonded, 2 mm thickness. Vinyl panel can be corner locked to pedestal head or installed by gravity on substructure with connecting bolted stringers. Static dissipative or conductive PVC is recommended in sensitive work places to prevent electrostatic charges.

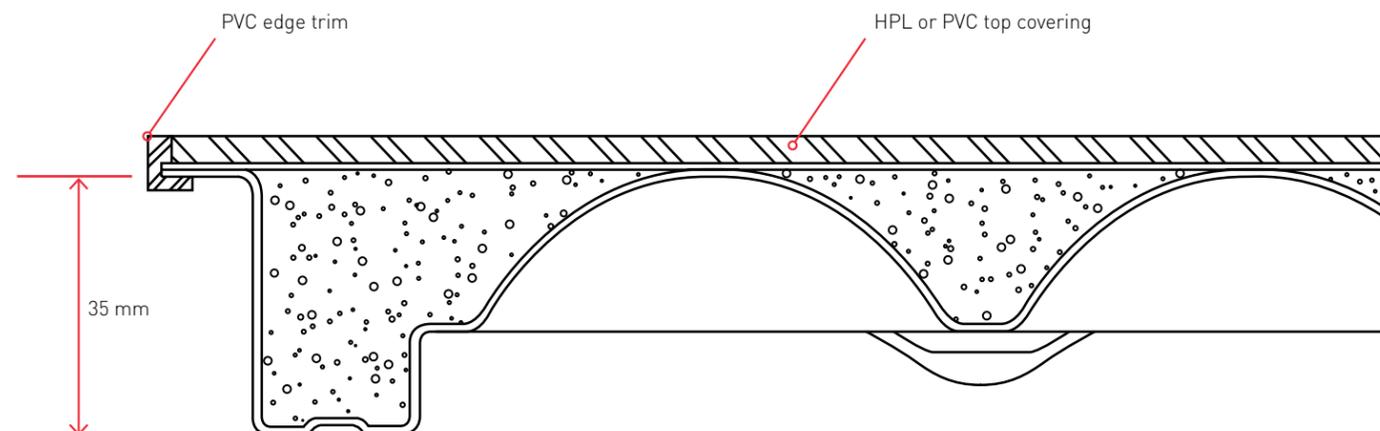
The electrical resistance of the floor is very important for two reasons:
 // personal safety;
 // the good functioning of the data processing equipment and other electro-sensible appliances.

Static dissipative or conductive PVC is used in laboratories, cleanrooms, operating rooms and explosive powder magazines.



GENERAL CHARACTERISTICS

Panels size	600x600
Panel thickness	35,00 mm
Panel squareness (measured on a diagonal on top of the panel)	+/- 0.38 mm
Panel size	+/- 0.12 mm
Panel flatness (diagonal corners)	+/- 0.50 mm
Surface	powder coated
Finish	protective epoxy
Panel Fire performance acc. ASTM E84-01	Incombustible – Class A



MECHANICAL CHARACTERISTICS*

	SIZE mm	CONCENTRATED LOAD N	ROLLING LOAD N	ULTIMATED LOAD N	UNIFORM LOAD N
ST700	600x600x35	≥ 2950	≥ 2255	≥ 8850	≥ 12500
ST800	600x600x35	≥ 3550	≥ 2950	≥ 10650	≥ 16500
ST1000	600x600x35	≥ 4450	≥ 3560	≥ 13350	≥ 23000
ST1250	600x600x35	≥ 5560	≥ 4450	≥ 16680	≥ 33000
ST1500	600x600x35	≥ 6665	≥ 5560	≥ 19995	≥ 39324
ST2000	600x600x35	≥ 8908	≥ 7790	≥ 26724	≥ 52557

CISCA test procedures:

// Concentrated load (SECTION I)

The purpose is to determine the maximum deflection(s) and permanent set(s) of an access floor under load applied through a steel indenter 1" (25.4 mm) square in the weakest point of the panel.

// Ultimate load (SECTION II)

The purpose is to verify the ability of an access floor to accept the manufacturers' published ultimate load applied through a steel indenter 1" (25.4 mm) square in the weakest point of the panel.

// Rolling load (SECTION III)

The purpose is to determine the durability and/or deformation of access floor systems when exposed to loads directly imposed through caster wheels.

// Uniform load (SECTION VII)

The purpose is to determine the maximum deflection(s) and permanent set(s) of an access floor under a uniformly distributed load.

*according to CISCA recommended test procedures

SUBSTRUCTURE RANGE

Strong Floor has a wide range of substructure is suitable for all type of installations. The structure can be provided stringerless or with stringers, according to the floor height and the load requirements.

PEDESTAL BASE TUBE

Nesite Strong Floor has a large variety of pedestal types with different specifications according to many applications and performance required.

Base tube sizes available:
 // Square 22.3 x 22.3 mm
 // Round Ø 22.3 mm
 // Round Ø 25 mm
 // Round Ø 28 mm
 // Round Ø 32 mm
 // Round Ø 45 mm

Each type of pedestal can reach different load values according to Cisca* standard.

All items are Hot Dipped Galvanized "HDG", zinc whisker free to protect electronic equipment and with anti corrosion finish to protect all steel components from rusting.



*CISCA test procedures:

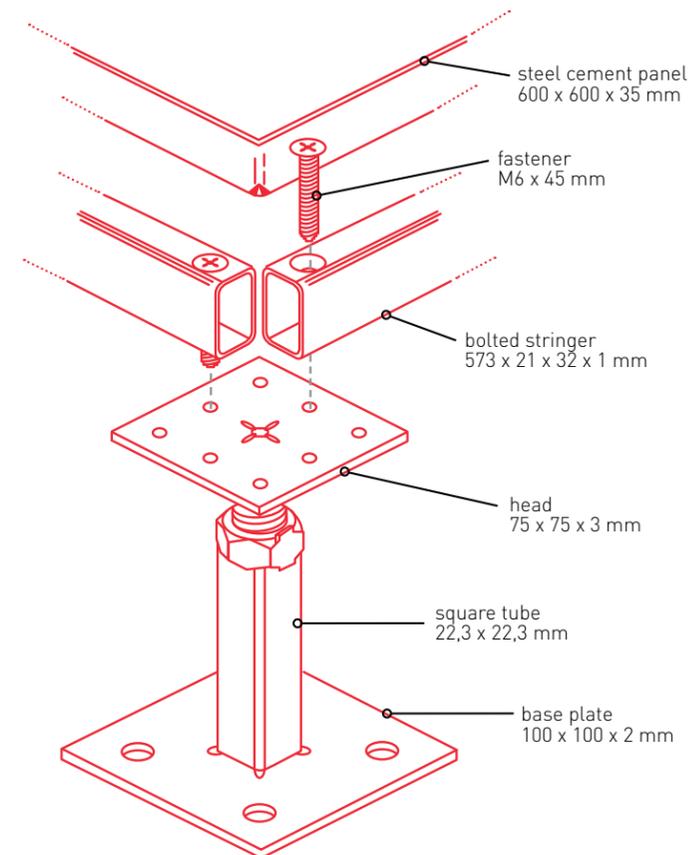
PEDESTAL AXIAL LOAD (SECTION IV)

The purpose is to verify the axial load an access floor pedestal assembly can withstand without structural failure or damage to components inclusive of threads, nuts or collars. Loads shall be imposed and measured through a properly calibrated and appropriately sized load sensor over the center of the pedestal head.

PEDESTAL OVERTURNING MOMENT TEST (SECTION VI)

The purpose is to determine the overturning moment on access floor pedestal assembly and its application to the sub-floor can resist. Test is performed by lateral loads applied slowly and continuously to the prescribed location of the assembly until any failure of the pedestal assembly.

RIGID GRID SYSTEM



This system has a fixed rigid grid understructure made up of pedestals and bolted stringers. The stringers are screw fixed on the pedestal heads forming a perfect 600 x 600mm square grid, offering a great lateral support and guaranteeing continuous earth bonding. Rigid grid system is recommended for applications where there are constant rolling activity on the floor and high load and traffic areas as corridors and lobbies.





CORNER LOCK SYSTEM

This is the most widely used system for general offices where carpet tile has to be installed. This system is used when a fully integrated locking system is required for mounting equipment to the access floor system.

Bare panels are installed by corner lock screws to pedestal head without connecting stringers. Panels are manufactured with special round holes on the corners to be fixed by screw to die-formed pedestal head or flat pedestal head.

Also HPL and VINYL Panel can be produced with punched holes to be installed by corner lock system. In this case the punched tile chips will be put back to the corner holes after fastening of panels to the pedestal head in order to hide the fixing screw.

FEATURES:

- // Greater rigidity and stable floor structural.
- // Flexible, efficient and easy to install.
- // Easier and faster access.

Corner lock system of Strong Floor can be made of 3 different pedestals:

STEEL DIE-FORMED HEAD



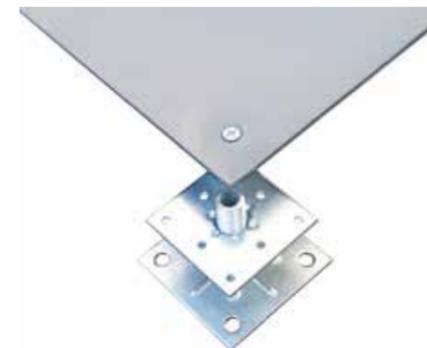
Steel die-formed square head is 82x82 mm and 4 mm thick. It is fitted with an expansion gasket designed to keep the panels separated by 0.3mm at all times. This eliminates the panels clicking or rubbing up against each other during expansion. Panel is locked to the head by corner lock screws.

FLAT HEAD WITH GASKET



Steel flat head is 75x75 mm and 3 mm thick. It can be provided with antistatic gasket designed to keep the panels separated and to eliminate the panels clicking or rubbing up against each other during expansion. Panel is locked to the head by corner lock screws.

LOW PROFILE PEDESTAL



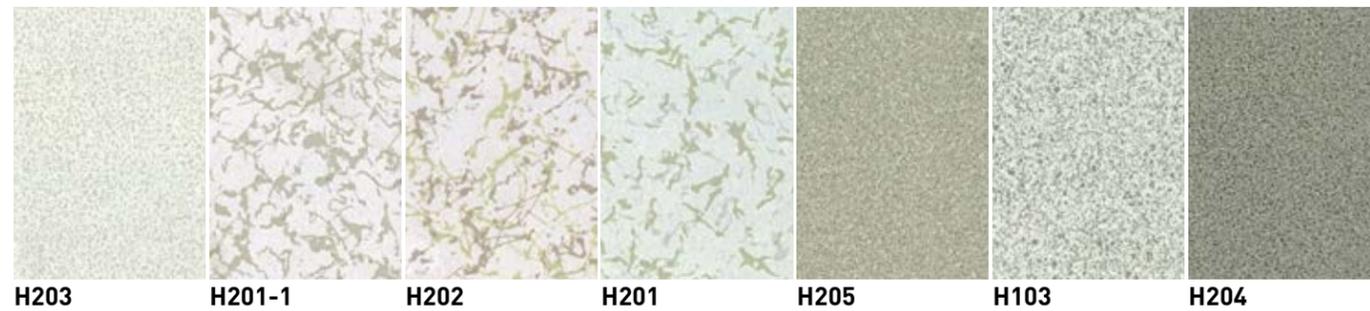
Steel flat head 75x75 and 3 mm thick screwed to threaded rod M18 welded to the base of pedestal. It is suitable for floor level 5-12 cm. Panel is locked to the head by corner lock screws.

STRONG FLOOR: PANEL FINISHING

HIGH PRESSURE LAMINATE

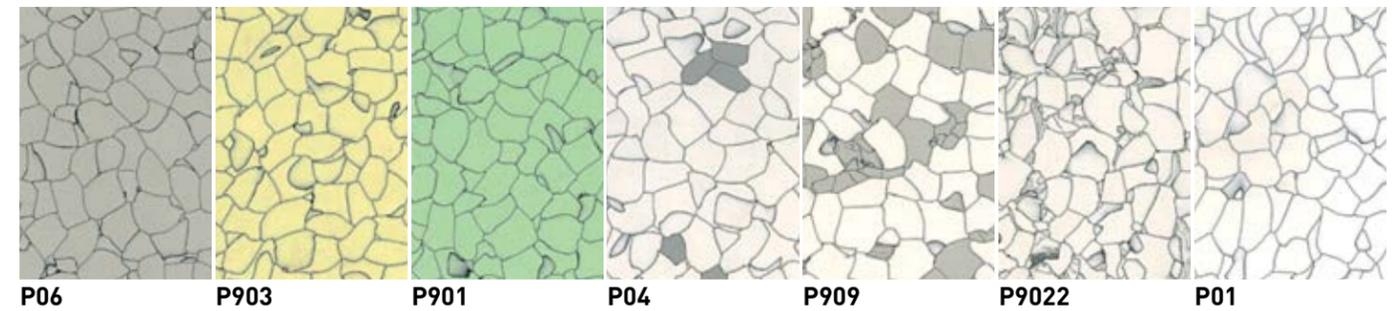
Antistatic high pressure laminate is one of the most used finishing particularly suitable for raised access flooring systems. HPL has become the standard in equipment and computer room design because of its ease of maintenance and its high scratch and abrasion resistance. HPL is manufactured with layers of fibrous material (e.g. paper) impregnated with thermosetting resins, bonded by heat.

- The main features are:
- // Special antistatic properties
 - // High scratch resistance
 - // High abrasion resistance
 - // High impact resistance
 - // Excellent moisture resistance
 - // Good water resistance
 - // Good vapour resistance
 - // Excellent resistance to high temperatures
 - // Good resistance to chemicals
 - // Ease of cleaning
 - // Good dimensional stability
 - // Excellent reaction to fire with low fumes



VINYL

Vinyl floor coverings can be with static dissipative or conductive properties according to specific electrical resistance requirements consists of products which are designed to meet specific resistance requirements. The ESD (Electro Static Discharge) range has been specifically engineered to prevent electrostatic discharge at source by facilitating a uniform flow of static electricity directly to ground point.



Strong Floor HPL characteristics acc. to NEMA (National Electrical Manufacturers Association of America) Test Methods:

Properties	NEMA Test Method	NEMA Standard	NESITE HPL
ELECTRICAL RESISTANCE	NFPA99	-	1.0 x 10
STAIN RESISTANCE	3.4	NE	NE
BOILING WATER RESISTANCE	3.5	NE	NE
HIGH TEMPERATURE RESISTANCE	3.6	SL	NE
WEAR RESISTANCE	3.13	3,000 cycles (min)	5,000+

Rating Codes: NE= No Effect SL= Slight Effect M=Moderate Effect

Properties	Minimum Average	Maximum Average
STATIC DISSIPATIVE	1x10 ⁶	1x10 ⁹
ELECTROSTATIC CONDUCTIVE	2.5x10 ⁴	1x10 ⁶

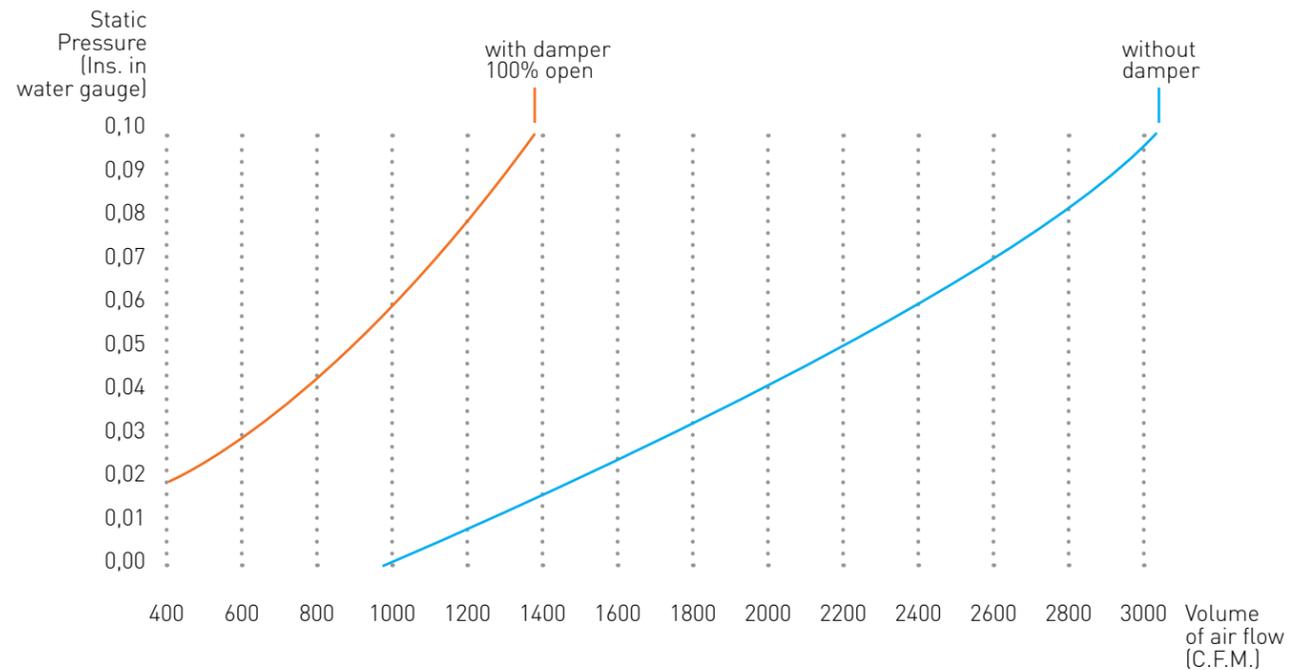
PERFORATED PANELS

ALUMINIUM PERFORATED PANEL (55%)

This aluminum panel is designed to support heavy load and ventilation rate is as high as 55%. Sliding damper can be installed at the bottom of the panel to meet air flow rate requirement of 0-55%. This panel can be installed with any of Nesite anti-static steel raised floor and aluminum raised floor.

FEATURES:

- // 55% open area for high volume air flow
- // available with top-adjusting slide dampers
- // die cast aluminum construction
- // suitable for cleanroom applications
- // recycled material content of both AF500 and AF600 = 100%
- // conductive epoxy paint finish
- // fire rating of bare panel: class A flame spread, non-combustible materials



The aluminium panel is available in two versions:

AF500



AF600



	SIZE mm	CONCENTRATED LOAD N	ROLLING LOAD N	ULTIMATED LOAD N	UNIFORM LOAD N
AF500	600x600x35	6.672 N	5.560 N (wheel B) 4.482 N (wheel C)	13.345 N safety factor 2-to-1 Min	2.224 kg/M ²
At 0.10 Static Pressure / 2950 CFM No Damper At 0.10 Static Pressure / 1400 CFM With Damper					
AF600	600x600x35	13.345 N	8.896 N (wheel B) 8.007 N (wheel C)	26.690 N safety factor 2-to-1 Min	3.114 kg/M ²
At 0.10 Static Pressure / 2900 CFM No Damper At 0.10 Static Pressure / 1350 CFM With Damper					



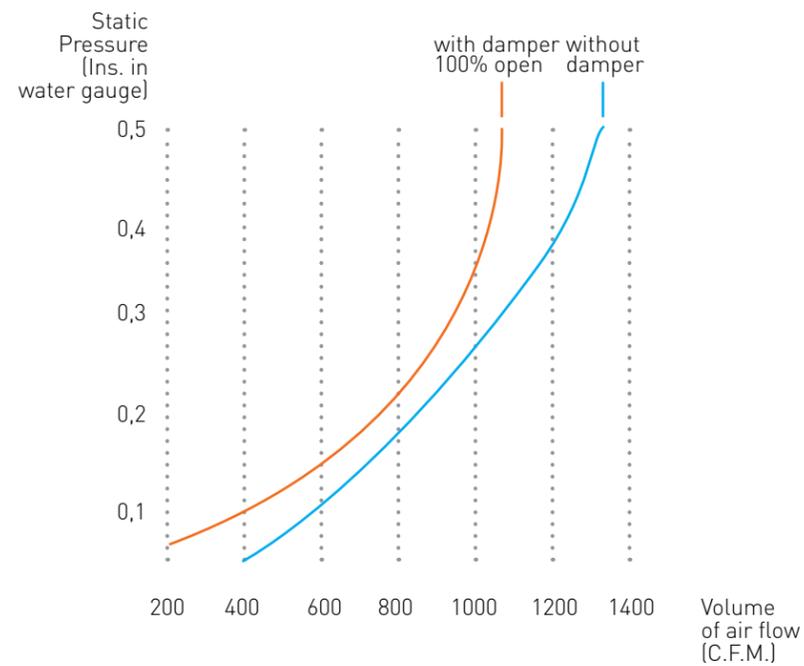
STEEL PERFORATED PANEL

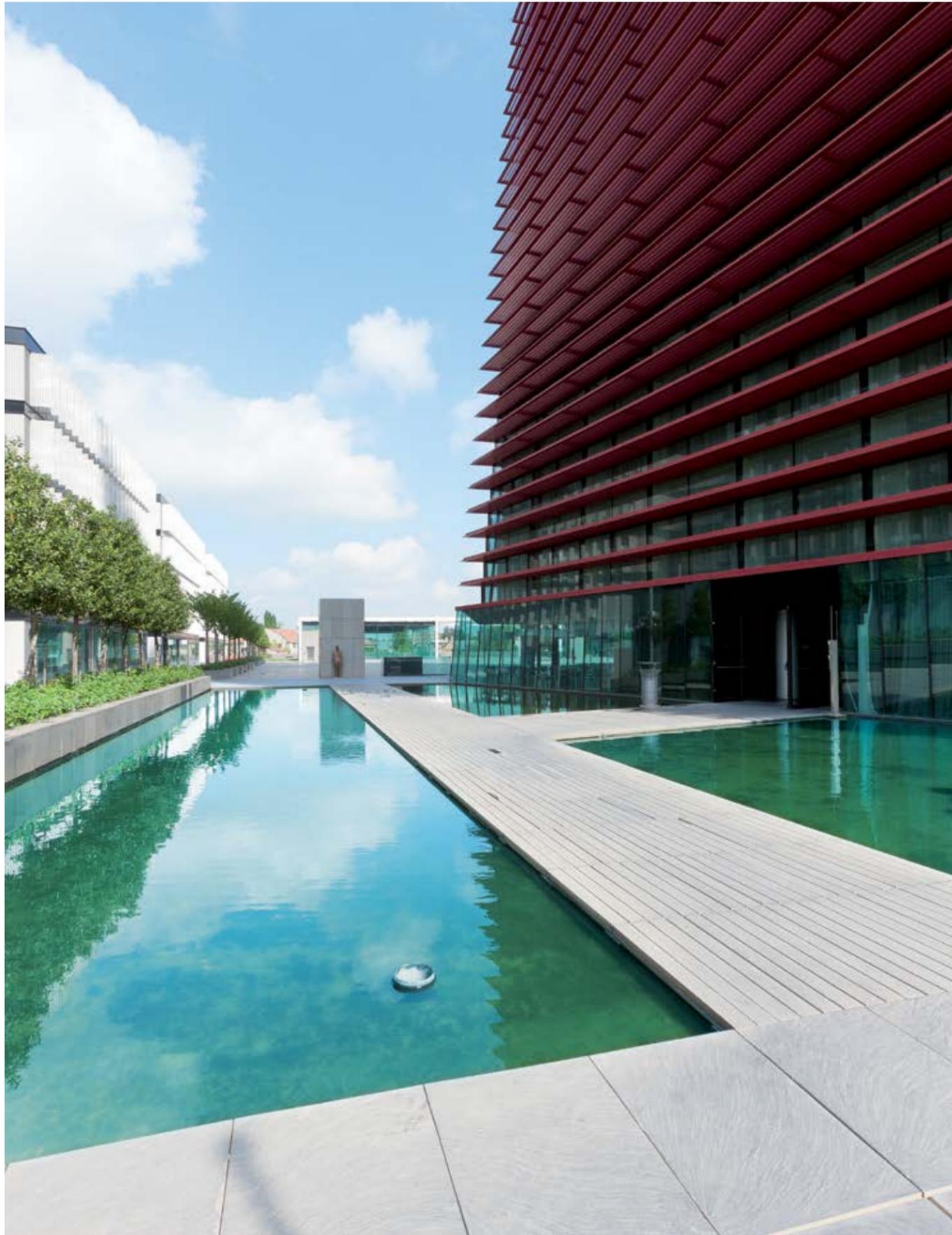
Steel perforated panel is 600x600 mm, 30 or 35 mm thickness, made of high-quality steel by drawing, punching, spot-welding and powder-coating. It has perforated surface with 22% airflow rate and can be supplied with or without mechanical damper. This panel can be installed with steel raised floor, with air flow requirements 0-22% with HPL or PVC top coverings.



AF200 PANEL

AF200 is a steel perforated panel 600x600 mm with perforated surface of 25% available with or without mechanical damper with anti-corrosion epoxy powder coated surface. This panel can be installed with steel raised floor, with air flow requirements 0-25% with HPL or PVC top coverings.





NESSITE, ALWAYS LOOKING FOR NEW SOLUTIONS

Nesite is the reference brand in the raised floor industry. Active on the market for 50 years, Nesite stands out for its innovative design, the perfect engineering and the Italian manufacture.

Nesite goal has always been providing innovative solutions, elegant and technically impeccable; that, combined with the high performance and flexibility, makes Nesite raised floor a clear reference of this specific sector. No other manufacturer offers such a wide choice of products in the field of raised floors, for both indoor and outdoor.

Nesite, the most innovative Italian raised floor company.

NESITE IS A BRAND OF

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