POLYGROUP

GAMAFLOR FULL STEEL

POLYGROUP ACCESS FLOOR
GAMAFLOR FULL STEEL

Founded in 1975, Polygroup has wide experience in the raised access floor sector, positioning us as a reference in the market. Throughout our history, we have expanded our global presence, and are currently present in projects all over the world. This extensive experience translates into access floor solutions of the highest quality such as the GAMAFLOR FULL STEEL systems.

These raised access floor systems are characterised by the fact that they are ideal for high-traffic buildings. While maintaining the high-performance technical characteristics, they require a flooring designed to withstand high workloads. Complying with the current European UNE standards, as well as the American ASTM standards, GAMAFLOR FULL STEEL systems meet the most rigorous quality standards without allowing the technical qualities to compromise the aesthetics of an attractive product.

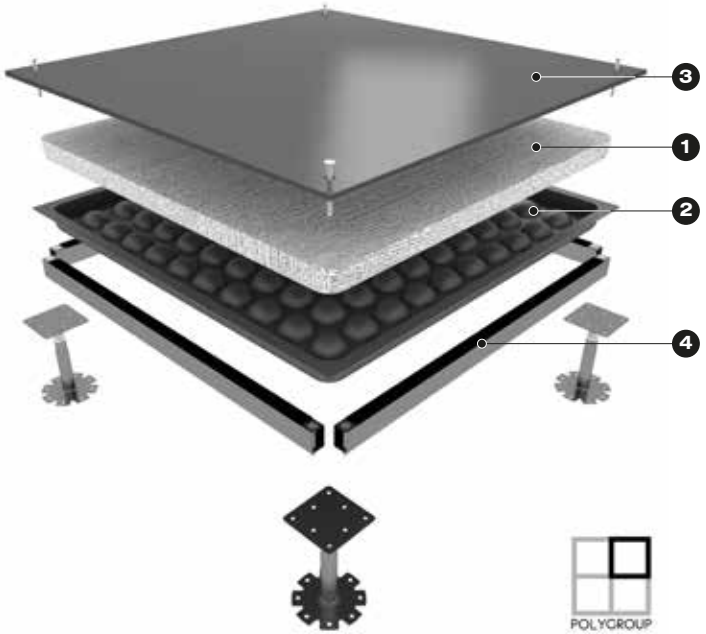
GAMAFLOR FULL STEEL WITHOUT COVERING

GAMAFLOR FULL STEEL WITHOUT COVERING

GAMAFLOR FULL STEEL raised access floor systems are designed to withstand high loads **for modular construction and technological and tertiary buildings.**

These systems are made of encapsulated steel panels and injected **with lightened cement,** have maximum fire resistance and a 0% moisture absorption level

Loose lay covering after installation of the system



① CORE

High density injected lightened cement compact (1.250 Kg/m³; ± 10% in accordance with international standards) with a thickness of 34 mm.

② REINFORCED BOTTOM STEEL

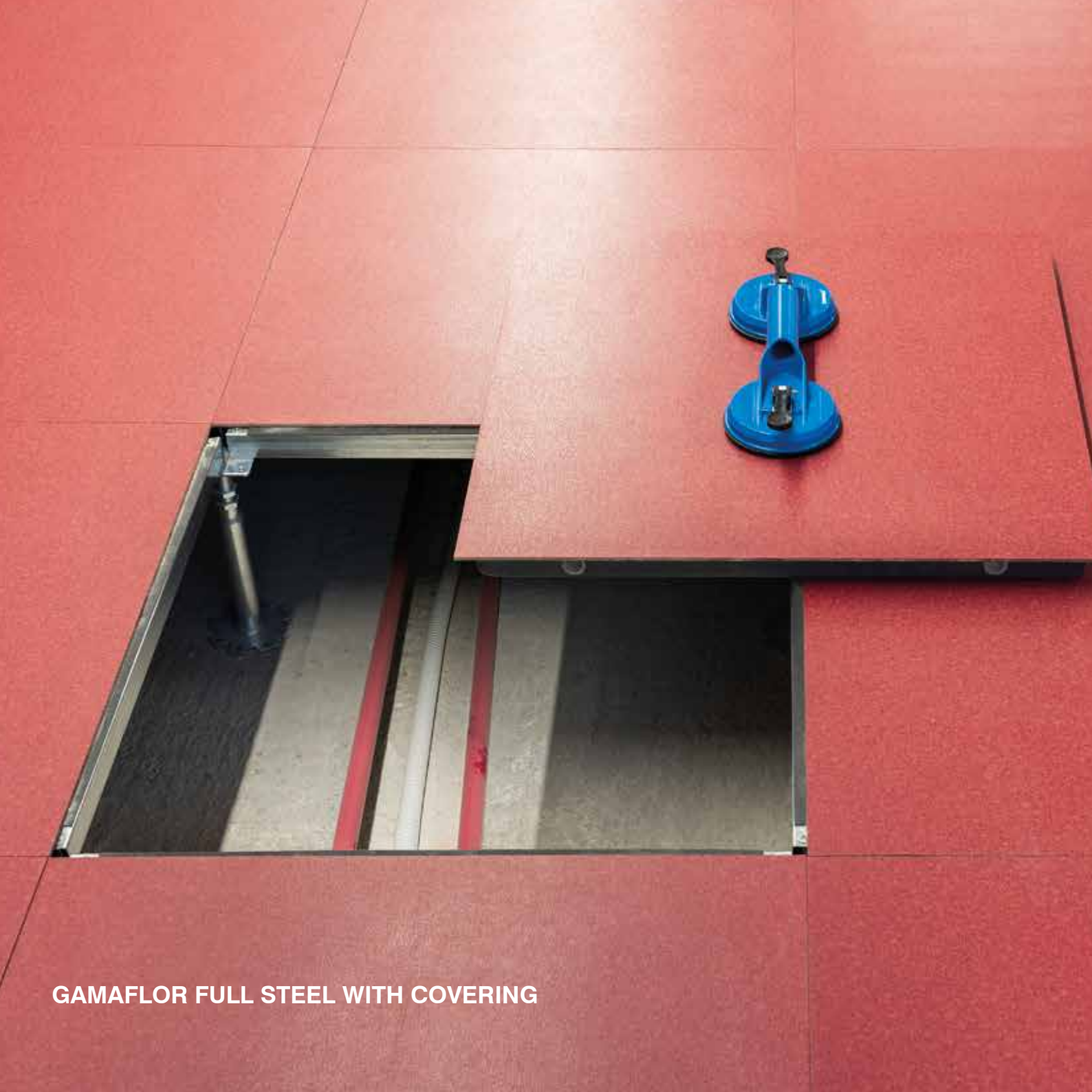
Thermoforming steel tray with 64 concave cavities, perimeter reinforcing rib and protective epoxy paint finish. Thicknesses between 0.70 mm and 2 mm.

③ REINFORCED TOP STEEL

Smooth steel sheet and finished with protective epoxy paint. Thicknesses between 0.70 mm and 2.00 mm.

④ STRUCTURE

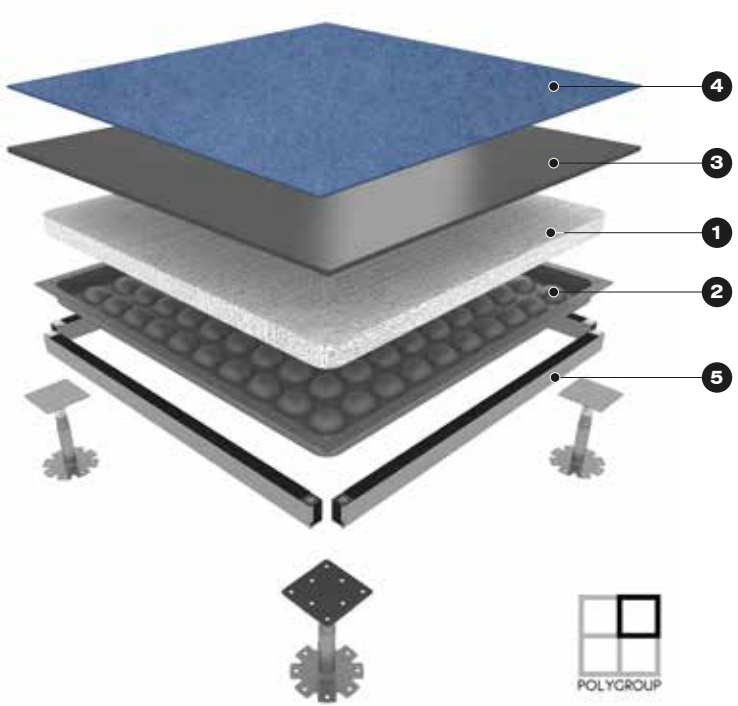
Solid steel structure consisting of height-adjustable pedestals and bolted stringers.



GAMAFLOR FULL STEEL WITH COVERING

GAMAFLOR FULL STEEL WITH COVERING

The raised access floor systems GAMAFLOR FULL STEEL WITH COVERING- maintain all the properties of the conventional system while providing full accessibility and high aesthetics in the space of use.



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Thermoforming steel tray with 64 concave cavities, perimeter reinforcing rib and protective epoxy paint finish. Thicknesses between 0.70 mm and 2 mm.

③ REINFORCED TOP STEEL

Smooth steel sheet and protective epoxy paint finish. Thicknesses between 0.70 mm and 2.00 mm.

④ COVERING

Synthetic or natural decorative covering integrated in each panel.

⑤ STRUCTURE

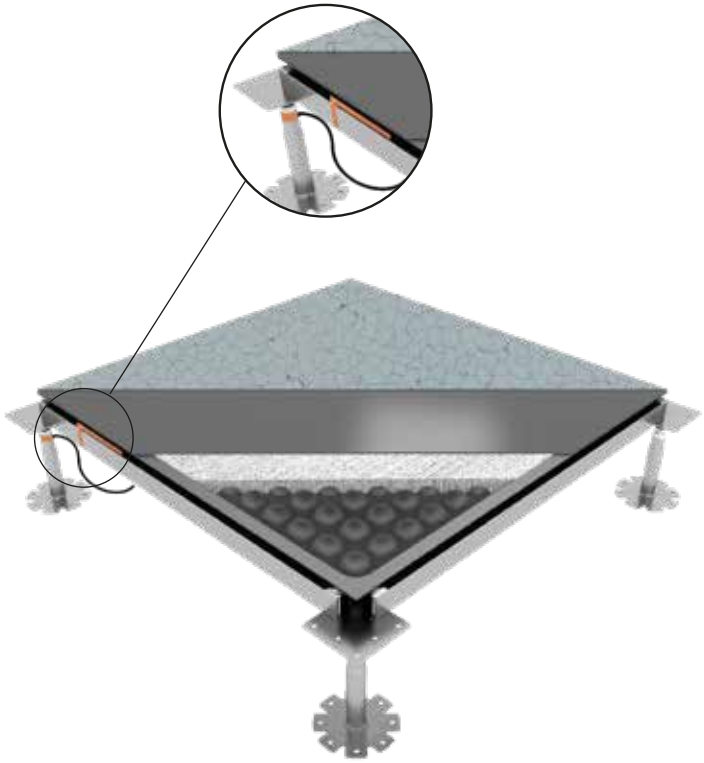
Solid steel structure consisting of height-adjustable pedestals and stringers.

GAMAFLOR FULL STEEL CONDUCTIVE

GAMAFLOR FULL STEEL CONDUCTIVE & ESD

GAMAFLOR FULL STEEL CONDUCTIVE raised access floor systems have been specially designed to **improve electrostatic charges in the space and protect electronic components** by helping to conduct free electrostatic electricity found in the environment.

These systems are made up of specific technical coverings, which, together with conductive elements such as copper, help to divert these charges through the earthing system.



Gamaflor FULL STEEL CONDUCTIVE

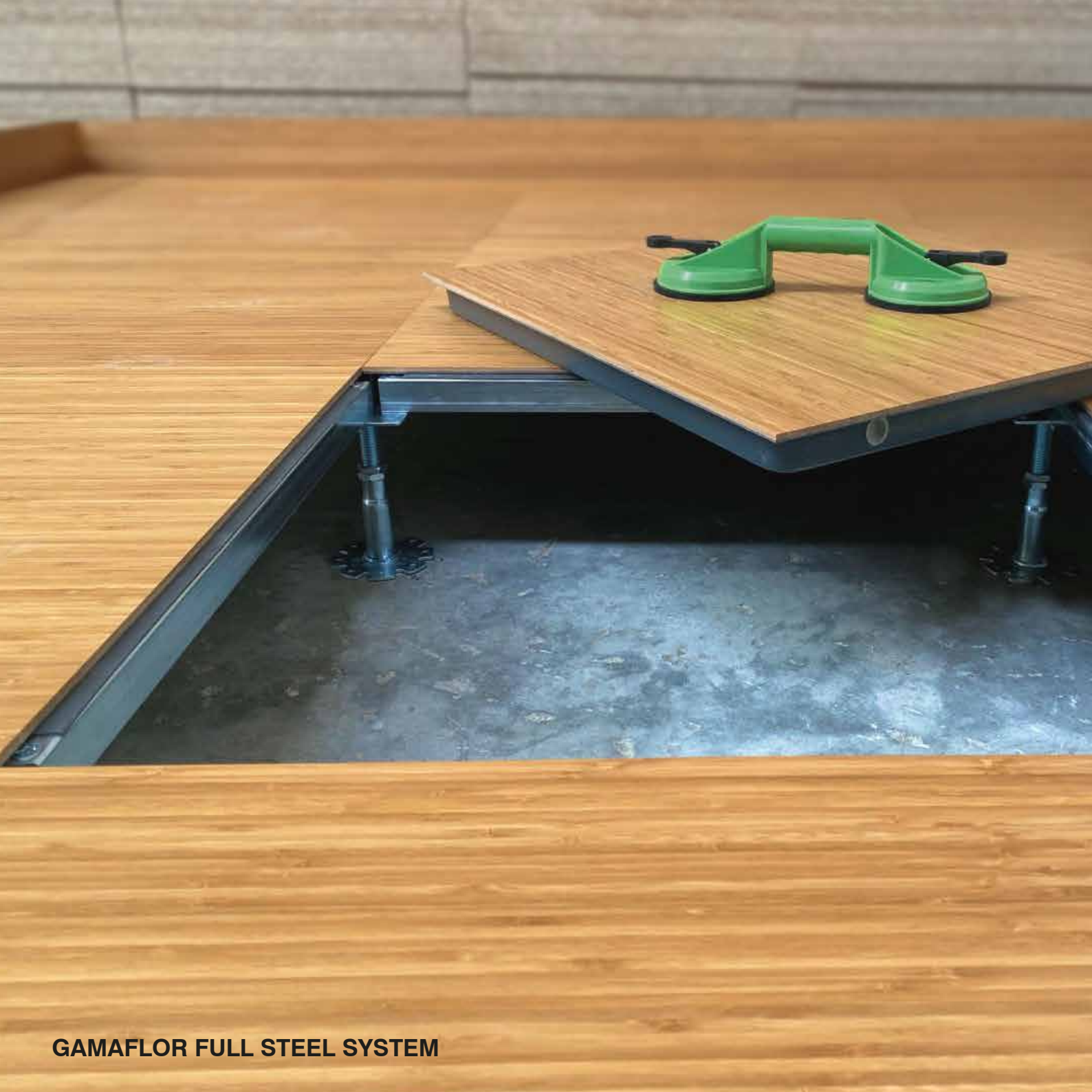
10^4-10^7 Ω	A1	<2 Kw
UNE-EN 1081	UNE-EN 13501-1:2002	UNE-EN 1815
Conductive System	**Classification fire**	**ESD System**

Low electrical resistance

Recommended Data Centre

Electrostatic conduction

Different colours



GAMAFLOR FULL STEEL SYSTEM

GAMAFLOR FULL STEEL SYSTEM

GAMAFLOR FULL STEEL raised access floor systems, consisting of stringers and pedestals, have been designed and developed to achieve evenly distributed **load resistances of up to 5000 kg/m².**

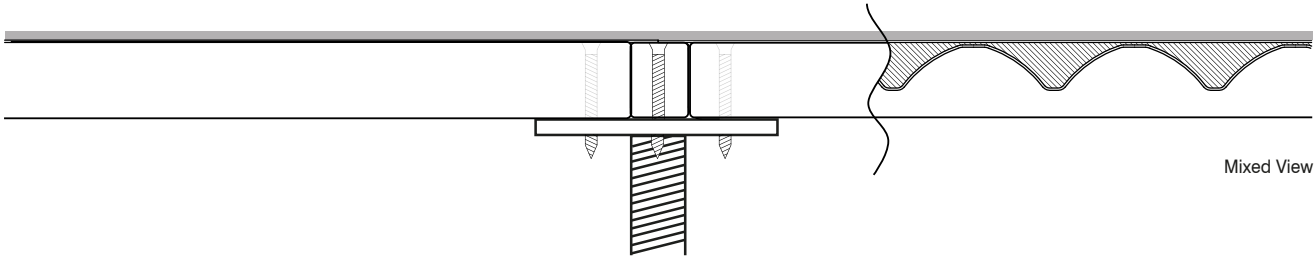
These systems are manufactured with different steel thicknesses according to the loads to be carried by the system.

High loads

Modularity

WITH STRINGERS

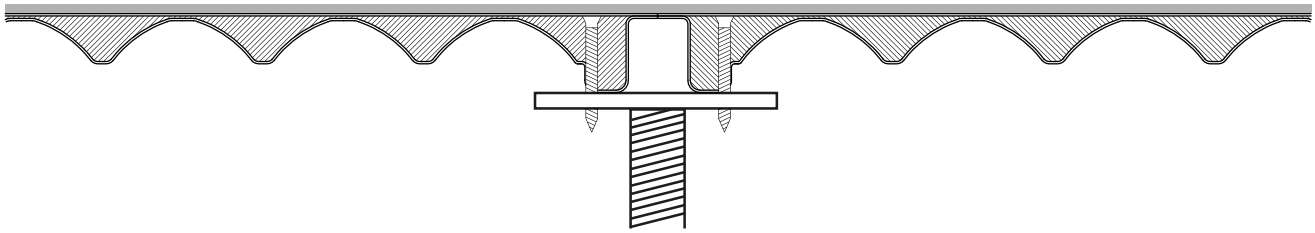
This system consists of the **mechanical fixing of pedestals and stringers** by means of FS45 screws. In this way the FULL STEEL panel is supported on the steel structure providing maximum stability, each panel being independent of the others. It is required for all panels with covering bonded on factory.



Mixed View

WITHOUT STRINGERS

This system consists of **mechanically fixing of panel to the pedestal** by means of an FS45 screw. In this way, the FULL STEEL tpanel is bolted on the steel structure, providing maximum stability and support. This type of fixing avoids having to use stringers up to a height of 450 mm, as the side of the tile itself acts as a perimeter reinforcement. This system is used for tiles that are not factory covered.



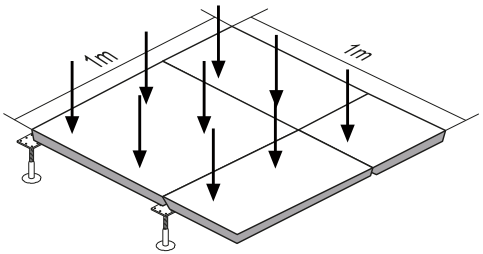
ACCESS FLOORS

GAMAFLOR FULL STEEL TECHNICAL INFORMATION

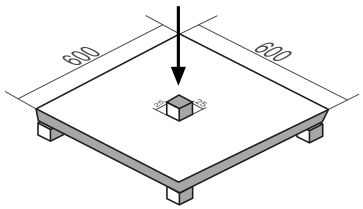
At POLYGROUP we are aware of the importance of complying with industry requirements, and our solutions are based on European and American standards. All our different solutions are certified by means of tests under the **UNE-EN 12825:2002** (Classification), **UNE-EN 13501** (Fire), **UNE-EN ISO 10848** (Acoustics) and **ASTM-CISCA** standards, among others.

		Full Steel LIGHT	Full Steel HEAVY MEDIUM	Full Steel HEAVY	Full Steel EXTRAHEAVY	Full Steel EH 2000	Full Steel BOMBARDIER	Full Steel CENTURION
Dimensions	(mm)	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600
Steel thickness	(mm)	0,7 0,7	0,9 0,9	1,0 1,2	1,2 1,4	1,5 2,0	2,0 1,8	1,9 2,5
Panel weight *	(kg)	14,15	16,50	16,70	18,50	21,80	21,90	23,15
Fire resistance UNE-EN 13501-1:2002		A1	A1	A1	A1	A1	A1	A1
Distributed load	(kN/m²)	25,50	41,00	41,00	41,00	50,00	50,00	50,00
Max. Point load UNE-EN 12825 / ASTM-CISCA	(kN)	>10kN / 11,50kN	>12kN / 19,91kN	>12kN / 21,91kN	>12kN / 24,23kN	>12kN / 26,75kN	>12kN / 31,50kN	>12kN / 44,90kN
Concentrated load UNE-EN 12825 / ASTM-CISCA	(kN)	3,70	4,50	5,78	6,70	8,95	11,12	13,40
Electrical resistance	(Ω)	> 10^9	> 10^9	> 10^9	> 10^9	> 10^9	> 10^9	> 10^9
Electrical resistance conductive system	(Ω)	10^4 a 10^6	10^4 a 10^6	10^4 a 10^6	10^4 a 10^6	10^4 a 10^6	10^4 a 10^6	10^4 a 10^6

*Without covering



Distributed Load



Point Load

Acoustic Properties

Fire Rating

Data referring to UNE-EN 12825 and/or ASTM-CISCA standards. Values may change depending on the type of covering

GAMAFLOR FS TH / VF

The GAMAFLOR TH / VF structure consists of galvanised steel pedestals and stringers fixed together as a complete system where each part plays a key role in the proper functioning of the whole.

The structure has been designed to ensure the **stability** of the raised floor as well as its **elevation and accessibility**.

① FULL STEEL PANEL

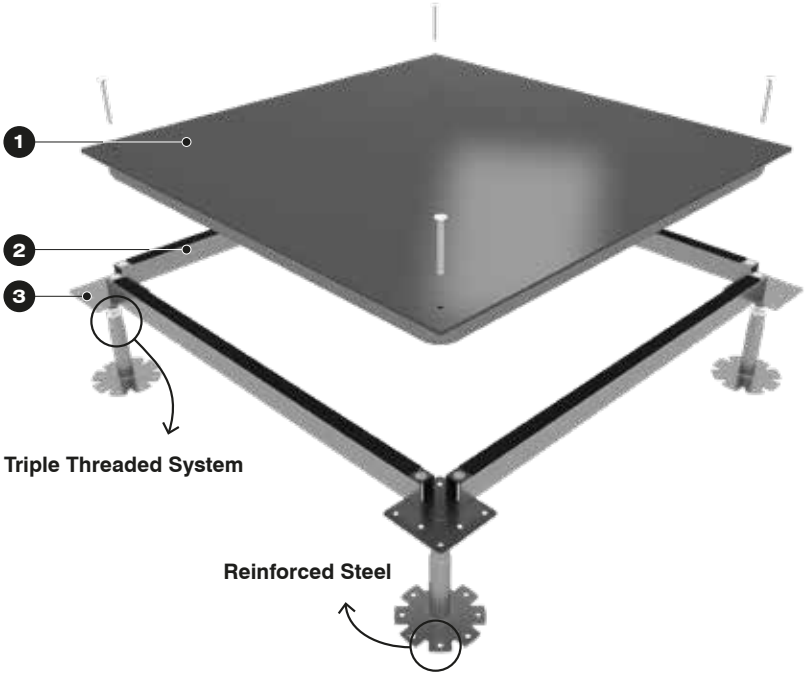
Access floor panels in any of the available formats and coverings.

② FS-550 STRINGER

Made of 1 mm thick galvanised steel, these are connected to the pedestal by means of a bolted system to ensure their stability.

③ PEDESTAL TH / VF

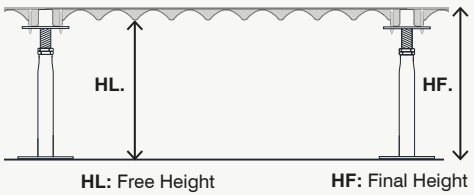
Made of steel, they are made up of two threaded parts that allow adjustment of the height and are secured with a double locking nut.



Range of heights

	HL. MIN	HL. MAX
TH 35 / VF 55	55	80
TH 55 / VF 55	75	100
TH 80 / VF 55	100	125
TH 80 / VF 120	120	190
TH 170 / VF 120	190	280
TH 170 / VF 260	260	415
TH 390 / VF 260	410	635
TH 390 / VF 390	410	765
TH 390 / VF 450	450	825
TH 600 / VF 260	620	845
TH 600 / VF 390	620	970
TH 600 / VF 450	620	1000

other configurations under requirement



HL: Free Height **HF:** Final Height

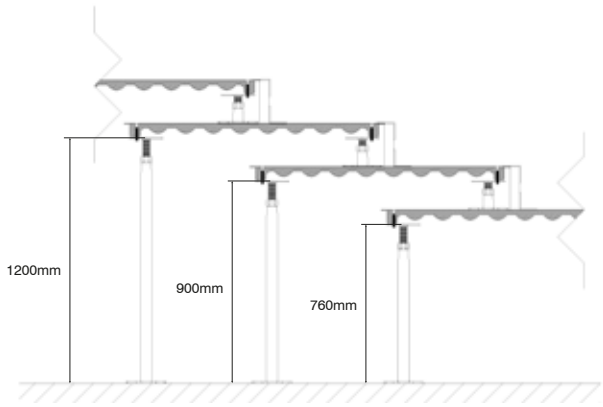
GAMAFLOR STRUCTURES

STEEL	
GAMAFLOR STRUCTURE	
Steel thickness	2.5 and 3.0 (mm)
Metric threaded rod (DIN-975)	M-18
Vertical load at the centre	9000 kg (90 kN)
Lateral axial load	125 kg (12.5 N)
Electrical resistance	2.0 Ω
Melting point	1400-1500 (°C)
Reaction to fire (UNE-EN 13501-1:2007)	A1
Protection	Galvanized
FS-550 STRINGER	
Thickness	1.0 mm

We also have raised access floor systems designed for **heights over 1m**, ideal for auditoriums and amphitheatres.

GAMAFLOR BTH

The GAMAFLOR BTH structure maintains the same technical specifications as the traditional structure, increasing the robustness of each pedestal by increasing the dimensions of its base (100x100 mm).



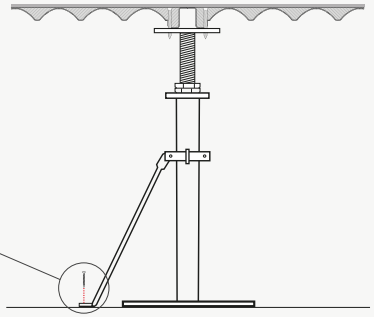
GAMAFLOR ATH

The GAMAFLOR ATH structure has been specially designed to comply with the **strictest height and strength requirements**. This structure maintains the same properties as a traditional structure and also guarantees its performance in extreme conditions, arising from height, seismic activity, lateral forces and high loads.

Application: heights between 800 mm and 2000 mm.
Greater than 2000 mm. under requirement.

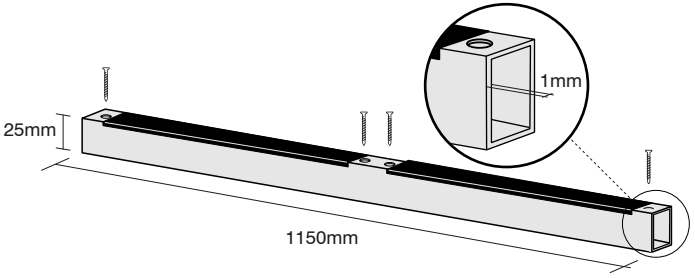
Structure designed for seismic zones

ANCHORING SYSTEM
Mechanical fixing by bolting to the base slab. Option to anchor one or two legs.



GAMAFLOR TUBULAR REINFORCEMENT FS-1150

The FS-1150 stringer is a double stringer that provides a solution to the creation of plenum spaces of more than 600 mm, in which 2 tiles are positioned to obtain spaces of up to 1200 mm. It is also suitable for wall and termination joints.



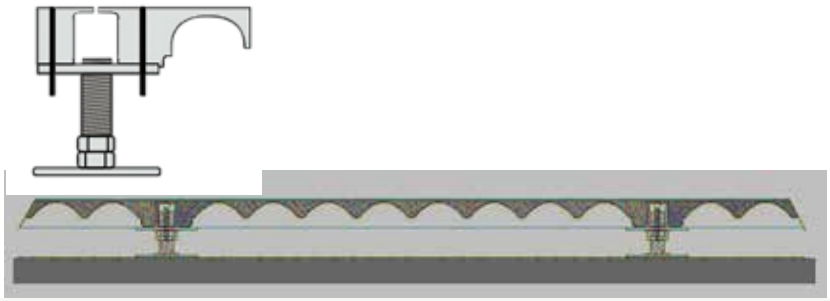
The FS-1150 stringers are installed on a tubular solution that allows the creation of spaces between pedestals in the plenum of up to 1200 mm, providing an integral reinforcement to the system.

GAMAFLOR FULL STEEL LOW PROFILE

Minimum height system (VF55/VFO)

This is a new pedestal system that can be used in the GAMAFLOR FULL STEEL WITHOUT / WITH COVERING systems with or without stringers, achieving final heights of 50/55 mm from the base screed to the walkable floor, leaving a free space of 20 mm.

It is ideal for the refurbishment of older buildings due to the limited height constraints, and in smart buildings and modern skyscrapers as it allows for an increase in the number of office floors.



ACCESSORIES

POLYGROUP offers customers a wide range of accessories for GAMAFLOR FULL STEEL raised access floors, to allow them to choose **complete systems** or provide **specific functions** for different spaces.

Ramps	Partition floor	Skirting boards
Air diffusers	Electrical boxes	Suction cups for panels
Cable grommets	Steps	

GAMAFLOR FULL STEEL COVERINGS

COVERINGS

The different coverings of the GAMAFLOR FULL STEEL raised access floor systems meet the specific needs of each building, both aesthetically and in terms of performance. They provide the system with **100% accessibility and facilitate the maintenance and use of the raised floor systems**. A wide variety of factory-finished coverings can be found on the panels.

High-pressure vinyl / HPV Lider

Conductive vinyl / Conductile Super-Or

Natural wood

Ceramic

Granite

Rubber

Carpet

Linoleum

PVC anti-slip / Lider Extranovo

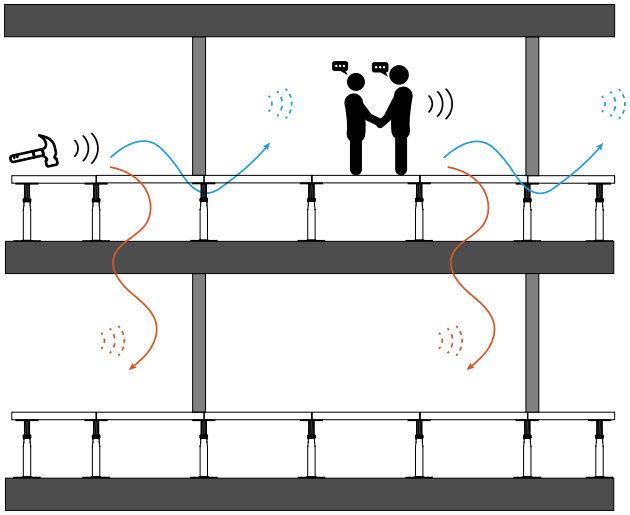
HPV lider finish

Granite finish

Ceramic finish

ACOUSTICS

GAMAFLOR FULL STEEL systems comply with all acoustic requirements regulated by the UNE-EN ISO 10140 and UNE-EN ISO 10848 standards in terms of airborne and impact sound transmission, **reducing it thanks to the use of coverings** on the raised access flooring.



Acoustic values (100 Hz to 5000 Hz)

GAMAFLOR FULL STEEL		
Lateral airborne noise	D_{nfw}	48dB – 52dB
lateral impact noise	L_{nfw}	64dB
Vertical airbone noise	R_w	56dB
Vertical impact noise	L_{nrw}	57dB

Depending on covering used, the acoustic values achieve improvements in performance All acoustic reports are available to the customer on request.

Different colours and materials

Acoustic properties

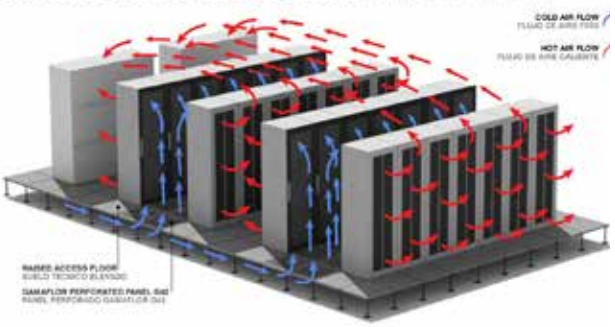
Correction factors from 100Hz a 5000Hz

An acoustic improvement in impact noise of 2dB is possible by using an SBR sheet under the lifting structure.

PERFORATED PANELS
Technology and aesthetics united

Our access floor systems with perforated panels offer the possibility of **manufacture with different opening percentages** to transform them into specific ventilation points. Thanks to the perfect balance between aesthetics and technology, they can also be applied with our U.F.A.D. technology systems.

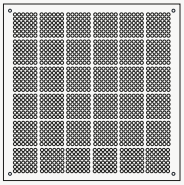
This modality requires a study of the project needs, for which our technical-commercial team will advise and offer the best available option.



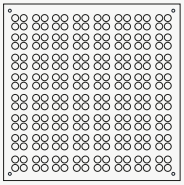
Air distribution

We have a range of perforated **steel** panels

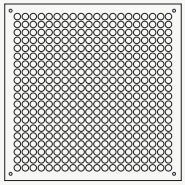
Gamaflor G-17
(17% open)



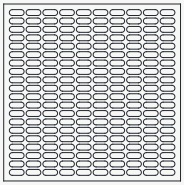
Gamaflor G-25
(25% open)



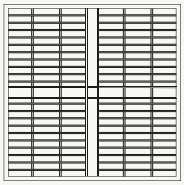
Gamaflor G-42
(42% open)



Gamaflor G-58
(58% open)



Gamaflor G-68
(68% open)



LEED CERTIFICATIONS

At Polygroup we maintain a high interest in all advances in the field of sustainability, such as the path to more efficient construction proposed by the LEED-V4 standard or the use of recycled raw materials in our manufacturing process. In this way, we adapt our access floor systems in order to offer our customers **as many credits as possible** and thus help to gain points in **obtaining energy certifications** in the projects.

U.S. GREEN BUILDING COUNCIL MEMBERSHIP

LEED CERTIFICATION

FOREST STEWARDSHIP COUNCIL (FSC)

VOC EMISSION

French CMR components	Pass
Italian CAM Edilizia	Pass
ABG/AgBB	Pass
Belgian Regulation	Pass
Indoor Air Comfort®	Pass
Indoor Air Comfort GOLD®	Pass
Formaldehyde Emission Class§	E1
BREEAM International	Exemplary Level
LEED v4.1 BETA (outside U.S.)	Pass
BREEAM® NOR	Pass

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