CLEANROOM RAISED FLOORING SYSTEMS

Cleanroom Building & Construction Systems' aluminum floor tiles are produced by high pressure die casting of an aluminum alloy. This comprehensive system has improved thermal, electrical and mechanical properties compared to competing systems. This is precisely what sets this unique and heavy-duty system apart in the marketplace.

Blind floor panels

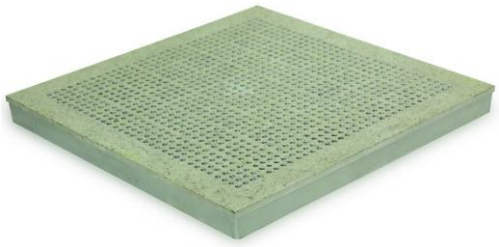
Produced by high-pressure die casting of high-quality aluminum alloy with an advanced and unique die-matrix concept, these panels are mainly made of blind (unperforated) plates with inferior stiffener ribs which are symmetrically positioned under the panel's surface. Each panel is finished using computerized numerical control (CNC) machine-driven equipment The thickness and height vary in order to guarantee higher resistance and appropriate load distribution, and have a deformation of less than 2mm during full load.

specifications	
composition	aluminum alloy (high pressure die casting)
dimension	600 x 600 mm (23.62" x 23.62")
thickness	50 mm (1.97") PVC-surface included
ultimate load	16.0 KN (ALU.1B.SP) standard performance blind panel
	25.0 KN (ALU.2B.HP) high performance blind panel
	31.0 KN (ALU.3B.UHP) ultra-high performance blind panel
	38.0 KN (ALU.4B.HDP) heavy duty performance blind panel
finishing	epoxy coating 10^6 Ω
	2 mm PVC EC 10^4 – 106 Ω
	2 mm PVC SD 10^6 – 10^8 Ω
optional	M6 corner lock (4 pcs/panel) / inspection hatch / floor socket
comment	see product datasheet for detailed specifications

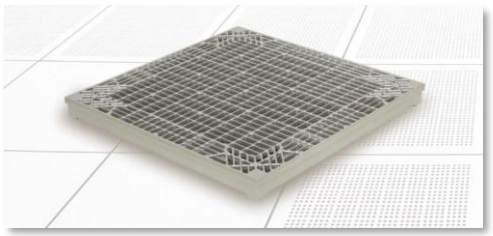
Perforated floor panels

The perforated panels are specially designed and based on the blind panels with the same specifications, but with the addition of 512 or 1024 holes for optimal air flow. Effective air transmission varies between 11-22%, depending on the number and size of the hole pattern. These panels can be optionally equipped with air valves made of two steel galvanized or epoxy powder-coated plates with slotted holes and a manual adjustment mechanism, which are attached to the panel's slat structure in such a way as to ensure stability without reducing the effective operation of the air valve.

specifications	
composition	aluminum alloy (high pressure die casting)
dimension	600 x 600 mm (23.62" x 23.62")
thickness	50 mm (1.97") PVC-surface included
ultimate load	16.0 KN (ALU.1P.SP.01/.02) standard performance perforated panel
	25.0 KN (ALU.2P.HP.01/.02) high performance perforated panel
	31.0 KN (ALU.3P.UHP.01/.02) ultra-high performance perforated panel
	38.0 KN (ALU.4P.HDP.01/.02) heavy duty performance perforated panel
perforation	512x Ø 10.0 mm (0.394") / 11% open surface
	1024x Ø 10.0 mm (0.394") / 22% open surface
finishing	epoxy coating 10^6 Ω
	2 mm PVC EC 10^4 – 10^6 Ω
	2 mm PVC SD 10^6 – 10^8 Ω
optional	M6 corner lock (4 pcs/panel)
comment	see product datasheet for detailed specifications



Slatted panels



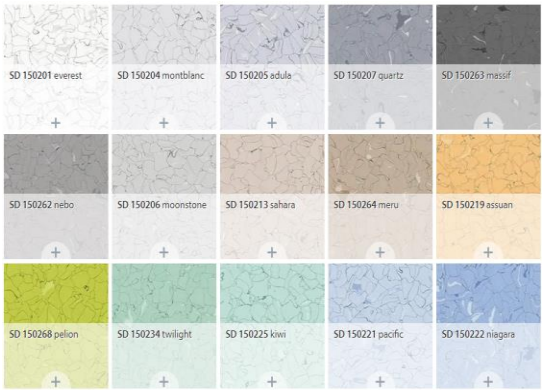
An advanced matrix design results in a panel with ribs of different sizes and a grid structure that ensures superior strength and capacity properties in relation to the distributed load. These grated panels have a profiled structure features slotted holes in various sizes, equal to 47% up to >60% of the total free area, which contributes to optimal airflow and/or fluid transit. The advanced concept matrix produces a multi-level ribbed panel. These ribs have different heights and thicknesses to create a particular structure that ensures higher strength and load capacity specifiations.

specifications	
composition	aluminum alloy (high pressure die casting)
dimension	600 x 600 mm (23.62" x 23.62")
thickness	50 mm (1.97")
ultimate load	16.0 KN (ALU.G1.SP) standard performance grating panel
	30.0 KN (ALU.G2.UHP) ultra-high performance grating panel
open ration	49% (ALU.G2.UHP) and >60% (ALU.G1.SP)
finishing	sandblasting
	epoxy coating 10^6 Ω
optional	M6 corner lock (4 pcs/panel)
comment	see product datasheet for detailed specifications

Conductive PVC for both solid and perforated panels

Conductive epoxy coating or PVC is ideal for raised flooring as used in cleanroom surroundings. This finishing consists of two layers: a conductive and static-dissipative one and is suitable for all applications that can satisfy all needs. A new electric conductivity system has been created using a conductive coating which offers higher performances and higher durability.
Main functional properties and advantages:

- ✓ PVC is carved from high density homogeneous blocks
- ✓ reduced volatile emissions
- ✓ low maintenance costs
- ✓ can be cleaned abrasively when permissible
- ✓ compact and pore-free surface in various colors available
- ✓ easily be fixed and restored to initial conditions many times without signs of usage
- ✓ sustainable met continuous preservation of technical properties for entire life-cycle



Height adjustable substructures

ALU.45.HP heavy pedestal with a ultimate load of >50 KN is used as understructure for raised flooring systems in cleanroom areas with the height of 280 up to 900 mm.
ALU.65.SHP super heavy pedestal with a ultimate load of >80 KN is used as understructure for raised flooring systems in cleanroom areas with the height of 280 up to 1.000 mm.
ALU.70.SHSP super heavy steel pedestal with a ultimate load of >105 KN is used as understructure for raised flooring systems in cleanroom areas with the height of 280 up to 1.000 mm.

Aluminum longitudinal beams and cross braces connect the height-adjustable pedestals and can be easily assembled with brackets and fasteners, complete supplied as a kit for an easy on-site assembly. All heads of the pedestals are foreseen with 2 mm shock-absorbing conductive PVC gasket. Epoxy coating 10^6 Ω, absorption for M6 corner lock and longitudinal beams and braces are optional and project based on request.

Airflow regulation

The perforated and slatted floor tiles can optionally be foreseen with an adjustable grille. Easily adjustable from the top of the panels, allowing installers and end users to achieve consistent balancing of airflow in cleanrooms. Factory assembled or supplied separately for an on-site installation.

Inspection hatch

The optional inspection hatch provides easy access to various utilities such as pressure and volume gauges, fittings, couplers, valves and connections located below the cleanroom floor surface. Inspection hatch is equipped with finger holes for easy opening without using special tools. Installable in blind floor tiles only.

Integrated floor socket

For a trouble-free access to underlying installations, such as data or electrical connections, blind floor tiles can be equipped with an integrated floor socket.

Building on reliability

Cleanroom Building & Construction Systems is a strong international and independent supplier of a wide range of constructive floor, wall and ceiling systems to specialized partners active in the cleanroom industry. For companies and organizations that want to build on trust. Trust in our knowledge and the specific properties of our products and systems: efficient, economical, durable and constructive. And confidence in a powerful partner you can rely on!

Cleanroom Building & Construction Systems, in cooperation with its partners, is happy to perform these tasks for you. From order entry to delivery and installation or validation, you have only one point of contact with complete cost transparency.
We look forward to helping you meet your system needs. Visit our 'Clean-Experience-Centre' and learn more about our extensive system range and components to stay one step ahead of your competition.

If you have a specific question in the area of cleanroom buildings or structural aspects, or if you would like to receive more information about one of our quality systems, please contact us at Info@Cleanroom-BCS.com or visit our website at www.Cleanroom-BCS.com.

Let's Build it Clean Together !

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