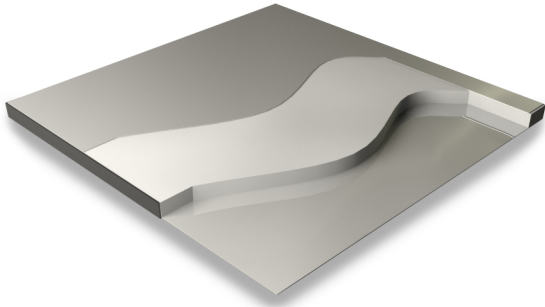


## UNITILE CALCIUM SULPHATE (UCS) - HPL EDGE SUPPORT RIGID GRID (ESRG) SYSTEM

### PANEL ILLUSTRATION



Category	Laminated, ESRG System
Panel size	600 x 600 mm
Core Material	Calcium Sulphate
Panel Core Thickness	30 mm
Panel Weight	18 Kgs
Weight of System	56 Kgs / m <sup>2</sup> for FFH 300mm (varies with height)
Overall Floor Height	65 mm - 2000 mm

### FEATURE BENEFITS

- ▶ High strength to weight performance.
- ▶ Excellent fire resistance properties tested as per Class O and Class 1 standards.
- ▶ Precision in floor levels and positive alignment with the understructure.
- ▶ Good acoustical properties.
- ▶ Unique In-built stringer design.
- ▶ 90-97% UCS panels can be recycled at the end of their life.

### PANEL CONSTRUCTION

The UCS floor panel is manufactured from 1600 kg/ m<sup>3</sup> fiber reinforced calcium sulfate, which forms the core of the panel. Non- combustible high quality alpha-hemihydrate single pressed gypsum and non-toxic unbleached cellulose fibers are used as reinforcing material. The core is manufactured using a unique technique of compressing multiple layers of natural gypsum to guarantee homogenous density across the panel and have high resistance to water absorption.

The top & bottom surface of the core is fully bonded and laminated by Antistatic High Pressure Laminate (HPL) and Al/ GI sheet respectively & then trimmed to fine dimensional tolerances for modular control, accurate alignment of the grids, interchangeability of panels and prevention of creep. The design incorporates a full depth ABS edge band, which while providing total encapsulation of the calcium sulphate core also protects the edge of the surface covering and resists ingress of moisture.

### SYSTEM DESCRIPTION

#### PANEL:

Unitile Calcium Sulphate (UCS) access flooring system is manufactured using calcium sulphate core of 30 mm thickness having a very high density of 1600 Kgs /m<sup>3</sup> of Natural gypsum. The panel is designed in a way it offers excellent acoustical sound deadening value, also offers a high degree of walking comfort ensuring perfect working environment. The panel also possesses electrostatic characteristics.

The panels are designed with pre-engineered cavity on all four corners to inter-lock with the pins on the PVC cap that leads to positive engagement between the pedestal and access floor panel. The factory-engineered Inter-locking design of the panel and the PVC cap enables positive alignment of the floor without any efforts during the installation and frequent access during service.

#### PEDESTAL:

The pedestal assembly shall provide easy adjustment of leveling and accurately align panels for a maximum  $\pm 25$  mm in the vertical direction. The Pedestal head assembly shall consist of embossed head mechanically riveted to a rolled formed stud and 2 check nuts for level adjustment and arresting vertical movement. The pedestal head shall consist of an anti-vibration conductive cap with inbuilt isolating spacers for Panel and stringer location.

#### STRINGERS:

The stringer shall be continuous box type, for strength, lateral stability, and for enhanced rolling load performance and to support the panels on all four sides for alignment without leaving any gap at the pedestal head preventing air leakage.

The box tabular section provides a higher footprint area for the panel to rest that improves load carrying performance of the floor. The continuous stringer on both sides fully supports the panel edges and minimizes air leakage.

## UNITILE CALCIUM SULPHATE (UCS) - HPL EDGE SUPPORT RIGID GRID (ESRG) SYSTEM

### PRODUCT STRUCTURAL PERFORMANCE

(As per BSEN 12825)

CLASSIFICATION	DEFLECTION	CONCENTRATED LOAD
Class A	2.5 mm	700 Kgs / 6.86 KN
Class B	3.0 mm	800 Kgs / 7.84 KN
Class C	4.0 mm	900 Kgs / 8.82 KN

### PRODUCT STRUCTURAL PERFORMANCE

Ultimate Concentrated Load	1837 Kgs / 11.76 KN
Uniformly Distributed Load (As per PSA MOB PF2 PS)	1377 Kgs / m <sup>2</sup>
Stringer Load	102 Kgs (225 lbf)
Pedestal Axial Load Test	22 KN
Pedestal Over Turning Moment Test	113 N x Meters

### OTHER STRUCTURAL PARAMETERS

Soft body impact	Tested as per (T12.03) of MOB PF2 PS Standards
Hard body impact	Tested as per (T12.03) of MOB PF2 PS Standards
Fire Rating	Class O & Class 1, as per BS 476 Part 6 (Fire Propagation) & 7 (Surface spread of flame). Rated REI 30 as per 1366-6 under BSEN 13501-2.

### ELECTRICAL RESISTIVITY

As per ASTM F150 Special Applications tested at 500 volts:

Anti-static range	1x10 <sup>9</sup> - 2x10 <sup>10</sup> Ohms (surface to surface)
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### APPLICATIONS

- Data Center
- Computer Room
- Server / Hub Room
- Switch Room
- Communication Room
- Control room

### FACTORY BONDED FINISHES

- HPL

### INSTALLATION TOLERANCE

Overall level before application of any load	± 1.5 mm over any 5.00 sq mt. ± 6 mm over any size of basic space.
Panel Level	+ 0.75 mm before the application of any load.
Panel Interchangeability installation and removal	Interchangeable (except for field cut panels) & replaceable in any of the four directions at 90° increments

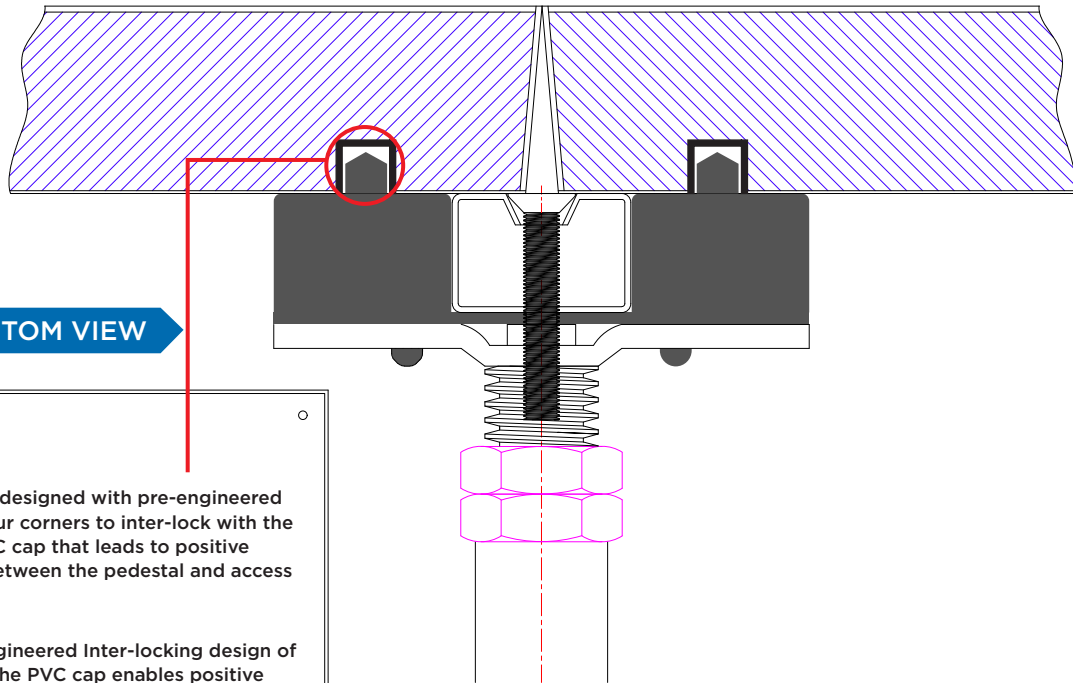
### FABRICATION TOLERANCE

Floor Panel Flatness	± 0.75 mm in any direction
Floor Panel Width or Length from specified size	± 0.50mm
Floor Panel Squareness	± 0.38mm

### SPECIAL APPLICATIONS

Bridging Sections	Where obstructions prevent the use of pedestals
Ramp Pedestals	Pivot head pedestal to support angled ramp panels

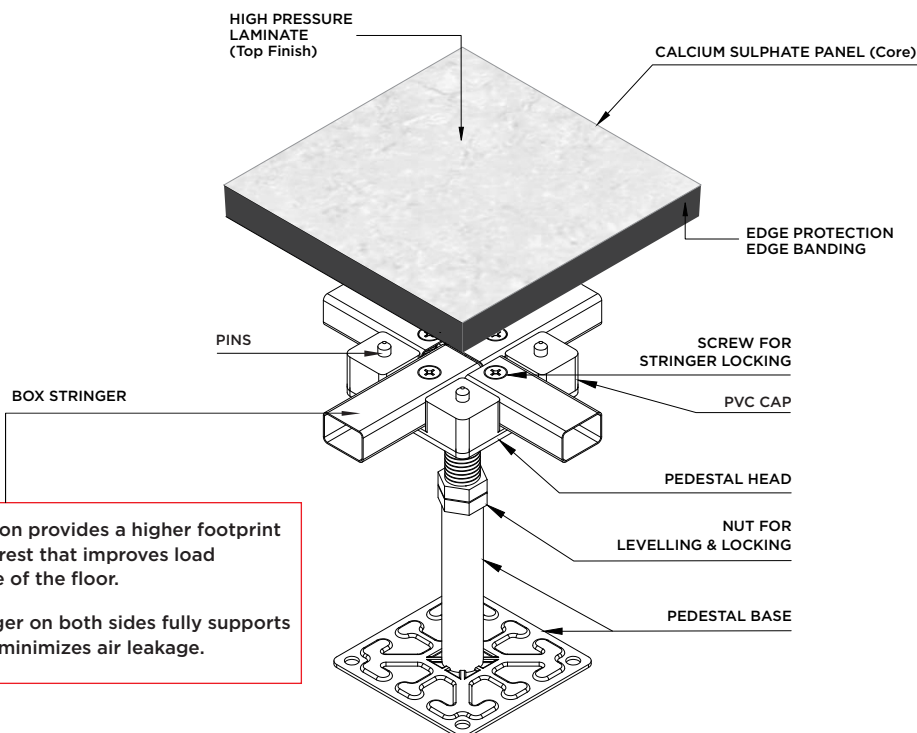
## PANEL CONSTRUCTION



## PANEL BOTTOM VIEW

- The panels are designed with pre-engineered cavity on all four corners to inter-lock with the pins on the PVC cap that leads to positive engagement between the pedestal and access floor panel.
- The factory-engineered Inter-locking design of the panel and the PVC cap enables positive alignment of the floor without any efforts during the installation and frequent access during service.

## UNDERSTRUCTURE



- The box tabular section provides a higher footprint area for the panel to rest that improves load carrying performance of the floor.
- The continuous stringer on both sides fully supports the panel edges and minimizes air leakage.