

# UNITILE UNILOCK 800

## Corner Lock system

### PANEL

Unitile ® Unilock ULP 800 Access Floor panel of size 600 x 600 mm shall be all steel welded construction with an enclosed bottom pan of 60 hemispherical cones and top plain sheet fuse welded at 124 locations and folded on all the four perimeters to achieve the greater strength of the edges. The overall thickness of the panel shall be 31 mm. The panel after cleaning, degreasing, phosphating by 11 tank process is coated with 40 – 60 micron epoxy coat and is heated to achieve maximum adhesion to the panel surface and corrosion resistance. The inner empty core of the panel is injected with a lightweight, fire retardant, non-combustible cementitious compound at high pressure to fill in all the crevices of the panel and ensures support of not less than 90% of the top surface area of the panel.

The panel shall have 4 locating corner holes with a Self-capturing fastener which will remain within the panel and will not get lost. These fasteners are used for bolting the panel to the substructure to form a rigid monolithic smooth leveled floor.

### SUBSTRUCTURE - PEDESTAL ASSEMBLY

Substructure installed to support the panel shall be suitable to achieve a minimum finished floor height of 65 -150 mm from the existing floor level. Pedestal design shall confirm speedy assembly and removal for relocation and maintenance. The assembly shall provide easy adjustment of leveling and accurately align panels for a maximum of  $\pm 25$  mm in the vertical direction. Pedestals shall support an axial load without permanent deflection and an ultimate load as laid out in System Performance requirement.

**Note: Higher finished floor heights (FFH) can be made available on request.**

The Pedestal head design provides self-engagement and positioning of the floor panel. Pedestal assembly shall consist of an embossed head mechanically riveted to a 100mm long  $\frac{3}{4}$ " dia rolled formed stud and 2 check nuts for level adjustment and arresting vertical movement. The pedestal head shall consist of an anti-vibration PVC cap with posilock design to provide more structural strength at four corners of the panel for positive panel location.

The Pedestal Base assembly shall consist of pipe with mechanically locked on a press for perpendicularity and then welded to a base plate with stiffening folds.

The substructure assembly shall be suitably anchored to the floor with a suitable adhesive as recommended by the manufacturer. All steel components shall be Pre- Galvanized.

## PERFORMANCE REQUIREMENTS MASTER SPECS (USA)

### A: Structural Performance: 'Recommended Test Procedures for Access Floors.'

- **Concentrated Loads:**  
360 Kgs (800 lbf ) with a top-surface deflection under load and a permanent set not to exceed 2.54 & 0.25 mm (0.10 & 0.010 inch) respectively according to CISCA A/F, Section I "Concentrated Loads."
- **Uniformly Distributed Load (UDL):**  
1650 kg/m<sup>2</sup> with a maximum permissible deflection of not more than 2.5 mm as per definition of "Uniform load" of CISCA.
- **Ultimate Concentrated Load:**  
900 kgs (2000 lbf) without failing according to CISCA A/F, Section II "Ultimate Loading."
- **Rolling Loads:**  
180 kgs ( 400 lbf) of the following magnitude, with a combination of local and overall deformation not to exceed 1.02 mm (0.040 inches) according to CISCA A/F, Section III "Rolling Loads." CISCA AF Rolling Load: 10000 Passes
- **Pedestal Axial Load Test:**  
22 kN axial Load per "Pedestal Axial Load Test "
- **Pedestal Over Turning Moment Test:**  
113 N x meters, according to CISCA A/F, Section VI, "Pedestal Overturning Moment Test"

### B: Other Optional Structural Parameters:

- **Soft body impact test** on the system shall be with a load of 40 kgs dropped from a height of 1000 mm and shall comply with all the performance as specified in the test method (T12.03) of MOB PF2 PS Standards.
- **Hard body impact test** on the system shall be with 4.5 kgs dropped from a height of 600 mm and shall comply with all the performance as specified in the test method (T13.03) of MOB PF2 PS Standards.

### C: Other Non-structural Parameters: .

- **Fire Rating:** The Panels shall confirm to Class O & Class 1 Fire Ratings tested as per BS 476 Part 6 (Fire Propagation) & 7 (Surface spread of flame) as also ASTM E84 1998 (Flammability) and ASTM E136 (Combustibility).
- **Non Combustibility Test:** Fire Test on Building Materials & Structures - Non Combustibility Test for Panels in accordance BS 476 Part 4-1970.

- **Fabrication Tolerance:**

- Floor panel flatness :  $\pm 0.75$  mm in any direction
- Floor panel width or length from specified size :  $\pm 0.50$ mm
- Floor panel squareness :  $\pm 0.38$  mm

- **Installation Tolerance:**

- Overall level before application of any load :  $\pm 1.5$  mm over any 5.00 sq. mt.  
 $\pm 6$  mm over any size of basic space.
- Panel level :  $+ 0.75$  mm before the application of any load.
- Panel Interchangeability installation and removal : shall be interchangeable (except for field cut panels) and replaceable in any of the four directions at  $90^\circ$  increments.

