**UNITILE® UWC 31 SERIES GRAVITY LAY / ESRG SYSTEM WITH HPL / VINYL**

Unitile ® UWC 31 mm thick Grade Access Floor panel of size 600 x 600 mm, shall consist of an Engineered High-density E1 chipboard core strengthened with high-performance thermosetting resins and encapsulated on all sides including edges within a precision casing of corrosion-resistant galvanized steel with a unique quadruple fold along the edges.

The panels are engineered to fine dimensional tolerances for modular control, accurate alignment of grids and inter-changeability of panels and also for prevention of creep. The bottom of the Panel shall have a die formed recessed countersunk of 20mm Dia on all the four corners. This countersunk ensures positive engagement with the Understructure pedestal head for it to remain in a location without mechanical fastening and enhances lateral stability of the System.

The panel is then laminated with floor grade Antistatic / ESD High-Pressure Laminate / Anti Static / Conductive / Dissipative Vinyl on a semi-automated lamination line to ensure maximum bonding to the steel surface. The edges of the Panels are protected with conductive PVC edge band on all sides.

**SUBSTRUCTURE - PEDESTAL ASSEMBLY**

Substructure installed to support the panel shall be suitable to achieve a minimum finished floor height of 150 mm to a maximum of 2000 mmfrom the existing floor level. Pedestal design shall confirm speedy assembly and removal for relocation and maintenance. The assembly shall provide easy adjustment of levelling and accurately align panels for a maximum ± 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.

The Pedestal head assembly shall consist of circular 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-vibrational conductive cap with inbuilt isolating spacers for Panel and stringer location.

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

The substructure assembly shall be suitably anchored to the floor with suitable adhesive or fastener as recommended by the consultant/manufacturer. All steel components shall be Hot Dipped Galvanized.

**STRINGERS (Optional if scheduled in specs)**

Stringers, if specified, shall be hot dipped galvanized steel cold rolled construction specially designed lateral stability, and for enhanced rolling loads and other structural performance of the system. The stringer with a ribbed section profile and anti-cut fold shall have countersunk holes at both ends to accommodate bolting of M6 machine screws to the pedestal head assembly.

**This system fully meets the Euro Class 3 -6 requirements of EN 12825.**

**SYSTEM PERFORMANCE**

 **A: UWC 31 mm - Structural Performance: Raised access Floors (Full Access) as per BSEN 12825**

|  |  |  |
| --- | --- | --- |
| **Classification** | **Deflection** | **Concentrated Load Kgs/ KN** |
| Class A | 2.5 mm | 578 / 5.67 |
| Class B | 3.0 mm | 600 / 5.88 |
| Class C | 4.0 mm | 728 / 7.14 |

|  |  |
| --- | --- |
| Ultimate Concentrated Load | 1728 Kgs / 16.94 KN |
| Uniformly Distributed Load/ Sq mtr | 1600 Kgs/ 15.68 KN |
|  |  |

* **Pedestal Axial Load Test :** 22 KN (2200 kgs) Axial Load per pedestal

**B: 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 (a Surface spread of flame).The Panel shall be rated REI 30 as per 1366-6 under BSEN 13501-2

* **Electrical Resistivity** **:**

As per ASTM F150/ NFPA 99 / ANSI S7.1 / CEI 61340 but modified for the surface to ground. To place one electrode on the Access floor Panel surface and to attach the other electrode on the pedestal.

Resistance to be tested at 100/500 volts

1. Conductive range **:** 2.5x104 – 1x 106 Ohms (surface to ground)
2. Static dissipative range **:** 1x106 – 1x109 Ohms (surface to ground)
3. Anti static range **:** 1x109 – 2x1010 Ohms (surface to surface)
* **Fabrication Tolerance**

|  |  |
| --- | --- |
| A. Floor panel flatness | ± 0.75 mm in any direction |
| B. Floor panel width or length from specified size | ± 0.50mm |
| C. Floor panel squareness  | ± 0.38 mm |

* **Installation Tolerance**

|  |  |
| --- | --- |
| A. Overall level before application of any load | ± 1.5 mm over any 5.00 Sqmt. |
| ± 6 mm over any size of basic space |
| B. Panel level | UCB+ 0.75 mm before the application of any load |
| C. Panel Interchangeability installation and removal | shall be interchangeable (except for field cut panels) and replaceable in any of the four directions at 90º increments |