



SOLID FEEL

The SolidFeel range of access floors has been specifically designed to cater for the demands and flexibility required by today's highly technological business environment.

SolidFeel access floor systems are the ideal choice for new and renovated office space. They conceal cables, wires, air ducting and other services, yet serve as easy access for maintenance work and relocation of these services. SolidFeel access floors are flexible enough to adapt quickly and easily to changing office furniture and equipment layouts.

The SolidFeel access floor panels are designed to withstand heavy rolling loads and concentrated loads, often a requirement of computer room systems which need to facilitate the moving and placing of computers and other equipment. SolidFeel systems have the versatility of allowing panels with different load characteristics to be placed exactly where they are required within the same understructure.

Access Floors: Architectural Specifications

Part A: General

System Description

The SolidFeel raised floor installation should consist of 600x600mm modular interchangeable, isotropic steel panels with a minimum of 180 welds per panel.

For the SFS range the isotropic steel panel will have a minimum of 144 welds per panel. The panels should be supported by a steel understructure, in accordance with the specification.

All components of the access floor system are of steel or aluminium construction except for the panel's cementitious core, surfacing materials and gaskets between the panel and the supports.

The complete floor system shall be sturdy, rigid and free of overall rocking, rattles, squeaks and noises. The finished floor shall be level within 1.5mm in any 3.0m direction and within 2.5mm over the entire floor.

The system shall be electrically conductive for dissipation of static electricity whilst having enough electrical resistance to provide protection against electrical shock.

To comply with SABS 0123:2001-“The control of undesirable static electricity”.

The construction of the raised access floor system and the materials and components used therein shall comply with all local codes and laws regarding fire, safety and health.

All components should be coated in an e-coated covering of approximately 20 microns and for the SFS Range the panel will be finished in a epoxy paint finish.

The system components should be locally produced. (Except SFS range)

The manufacturer of the system should be a member of the Green Building council of South Africa (GBCSA).

1 Quality Assurance

The manufacturing of the access floor components shall be under a stringent quality management system. All structural access floor components shall be supplied by one manufacturer to ensure compatibility and maintain the standards.

Method of testing for concentrated, ultimate and rolling loads of access floor panels shall be in accordance with SABS 1549:1993.

Installation of access flooring shall be approved by the general contractor before other trades are involved to maintain the integrity of the installed floor system.

Traffic shall not be permitted on any floor area allowing for the pedestal adhesive to set.

2 Submittals

The successful sub-contractor must submit the following documentation within six months after adjudication of the tender or by negotiation:

- Certificates from the manufacturer's testing laboratory, showing compliance with the requirements of the load performance table or specified design loads.
- System and components data sheets fully describing and specifying the performance of components and the overall system.

3 Site Conditions and Delivery

The general contractor shall provide a dry, secure storage and clean sub-floor which is free of dust, construction debris and other trades during the installation of the access floor.

Materials shall be delivered in original, unopened packages clearly labelled with the manufacturer's name and item description. Material packages shall be distributed around the area where they will be used to avoid overstressing the sub-floor and to facilitate installation.

The building shall be enclosed and the temperature shall be maintained between 5°C and 30°C and maximum 75% relative humidity.

Part B: Products

1 Access Floor Panels

All panels should consist of an e-coated painted (SF Range) and epoxy coated (SFS Range) steel panel filled with a non-combustible cementitious compound.

Acceptable panel tolerances:

- Size and squareness 0 – 0.5mm
- Surface flatness within 0.5mm
- Warpage within 0.25mm

2 Cut-out panels

All cut-outs should not be closer to the panel edge than 75mm.

All cut-outs to be capped with protective trim or metallic tape.

3 Finishes

Our panel has a standard 20 micron e-coat paint finish for the SF Range and an epoxy coat for the SFS Range. Additional finish to panel as per project specification.

4 Understructure

The understructure shall be a positive loc system (with the head equipped with a locating pin in order to ensure a positive lock to the panel) to a finished floor height FFH as specified. For a FFH of 500mm and above a Snap loc stringer understructure should be specified. For FFH of 750mm and higher, heavy duty bases must be specified and it is recommended that stringers are screw fixed in the heads.

The understructure system shall consist of a e-coat painted and factory assembled pedestal base and pedestal head, which shall be capable of supporting an actual load of not less than 22.2 Kn. (Only available in the SF range)

A corrosion resistant nut shall be provided which shall allow for the adjustment of the pedestal assembly over a range of 60mm without rotation of the pedestal head. The nut shall be prevented from rotating using a locking nut.

For a stringer system, the pedestal head shall be designed to receive a snap loc stringers, which when assembled, shall provide a completely rigid assembly even when eight abutting access floor panels are removed.

Stringers shall consist of a galvanized steel channel section with a provision for a snap-on attachment to the pedestal. Each stringer shall be provided with a PVC gasket on the top surface.

Additional pedestals to be provided to cut out panels to maintain integrity depending on their size.

The base of all the pedestals to be fixed to the sub-floor by means of a 2 part epoxy adhesive and additional mechanical fixing on two opposite sides of the plate with approved steel concrete anchor for finished floor heights of 750mm and above.

Perimeter pedestals to be used along perimeter walls and columns with stringers screw fixed into the perimeter heads.

5 Base Plate & Tube

Material: Cold Rolled steel

Base plate dimensions

- Standard Pedestal: 1.8 x 100 x 100mm
- Heavy Duty Pedestal: 3 x 125 x 125mm

Tube dimensions

Outside diameter – 27mm

Wall thickness – 2mm

Length – depends on floor height

Part C: Execution

1 Inspection

Examine structural subfloor for unevenness, irregularities and dampness that would affect the quality and execution of the work. Do not proceed with the installation until structural floor surfaces are level, clean and dry.

Traffic shall not be permitted on any floor area for a period of 24 hours, allowing for the pedestal adhesive to set.

Concrete sealers, if used, shall be identified and proven to be compatible with pedestal adhesive and bond to slab.

Verify dimensions on contract drawings, including level of interface such as abutting floor, ledges and door sills.

It is recommended that the main contractor makes allowance for re-screeding of floor, power-floated for areas more than 30m² and steel-floated for areas less than 30m².

Setting out of the access floor installation shall be in accordance with the architect's approved grid layout.

During the progress of the works, the sub-contractor shall protect his work and report in writing to the main contractor any damage caused to his work by others. Only the sub-contractor shall have access to the plenum [floor void] and will only have permission to uplift and replace panels for other sub-trades on written instruction of the main contractor.

Work of all sub-trades in the plenum [floor void] to be completed and tested to the satisfaction of the contractor before the raised access floor installation commences.

2 Acceptance criteria

The complete floor system shall be sturdy, rigid and free of overall rocking, rattles, squeaks and noises. The finished floor shall be level within 1.5mm in any 3.0m direction and within 2.5mm over the total floor.

The floor level test shall be done strictly with an appropriate laser machine provided by the contractor.

Completed floor to be inspected by the architect prior to any traffic and loading is placed on the completed floor.

Floor to be vacuum cleaned and should be free of any rubble, dirt or dust.

A guarantee to be supplied of the installed access floor system for a period of 10 years from the date of issue of the first delivery [practical completion] certificate.

A detailed installation, care and maintenance guide to be supplied.

Spare panels and panel lifting device to be supplied.

A set of shop drawing showing details of the installed access floor system including the method of dealing with perimeter edges, expansion joints and other items.

Load performance test(s) to conform to the manufacturer's load performance tables and carried out in accordance with the SABS 1549:1992.

The access floor components and installed access floor system shall conform to the requirements of the Tolerance and Limits Table below:

TOLERANCE AND LIMITS TABLE	
Description	Tolerance/Limit
Panel size	600X600mm $\pm 0.5\text{mm}$
Panel squareness	$\pm 0.50\text{mm}$
Panel flatness	$\pm 0.50\text{mm}$
Installed access floor level	1.50mm in any 3m direction 2.50mm over entire floor
Variation in height between adjoining panels	0.50mm
Max. depth of panel and pedestal head assembly	$\pm 40\text{mm}$

SF RANGE	SF	SF	SF	SF
LOAD PERFORMANCE TABLES	SOLIDFEEL 20	SOLIDFEEL 25	SOLIDFEEL 45	SOLIDFEEL 70
TYPE OF LOAD				
Concentrated Load (On a 25mm x 25 mm area)	2.9 kN	4.5 kN	5.6 kN	9 kN
UNIFORMLY DISTRIBUTED				
LOADS/m²	9 kN	13.5 kN	15.6 kN	25 kN
SAFETY FACTOR	27 kN	40.5 kN	42 kN	N/A
ROLLING LOADS				
200mm x 50mm WHEEL	LOAD 2.05 kN	LOAD 2.7kN	LOAD 2.7 kN	LOAD 6.8 kN
NUMBER OF PASSES	10 000	30 000	3 000	10 000
150mm x 38mm WHEEL	LOAD 2.7 kN	LOAD 3.25 kN	LOAD 3.25 kN	LOAD 4.5 kN
NUMBER OF PASSES	1 000	1 000	1 000	1 000
25mm x 75mm WHEEL	LOAD 2.7 kN	LOAD 3.6 kN	LOAD 4.5 kN	LOAD 5.5 kN
NUMBER OF PASSES	5	5	5	5
IMPACT LOAD	40 kg	55 kg	65 kg	80 kg
PEDESTAL ASSEMBLY				
AXIAL LOAD	22.7 kN	22.7 kN	22.7 kN	22.7 kN
PANEL SPECIFICATIONS				
PANEL SIZE	600mm x 600mm	600mm x 600mm	600mm x 600mm	600mm x 600mm
TOP SHEET	0.7mm	0.9mm	1.1mm	2.0mm
BOTTOM SHEET	1.0mm	1.0mm	1.3mm	1.3mm
PANEL MASS	13.68 kg	14.27 kg	16.37 kg	19.84 kg
PULL TEST ON PEDESTAL BASE	10 kg	10 kg	10 kg	10 kg
	(installation test)	(installation test)	(installation test)	(installation test)
FIRE TEST	60 min	60 min	60 min	60 min
	(CLASS 1)	(CLASS 1)	(CLASS 1)	(CLASS 1)
PAINT SPECIFICATION				
E – COAT : 20 micron				
ALL STEEL PANELS	SEVERN 52		AIRFLOW 52	
PANEL SIZE	600mm x 600mm		600mm x 600mm	
TOP SHEET	2mm		2mm	
BOTTOM SHEET	1.4mm		1.4mm	

SolidFeel Access Floor Panels

This range has the following advantages:

Structural strength.
Excellent distributed load characteristics.
Good acoustical performances.
Quiet comfort under foot.

The panels measure 600mm x 600mm.
Panels are spot welded before being filled with a semintitious filling.
Each panel has square reinforced pockets on the underside, which enhance structural strength.
The isotropic design, which is unique to the SolidFeel panels, gives excellent load distribution properties.
The SolidFeel panels are non-combustible and are coated with an e-coat conductive paint.

The SolidFeel panels may be fitted into any SolidFeel understructure and a wide range of floor coverings are available.

SolidFeel Airflow Panels

Solidfeel has two alternative Airflow Systems:

The 600mm x 600mm perforated all steel panel covered with a hard surface covering (HPL).
The 150mm x 450mm aluminium grill that fits into a cut out of any standard SolidFeel panel.

Both are compatible with the SolidFeel and Severn system stand that are available for intermediate and heavy loading.

SolidFeel Severn Access Floor Panels

The Severn access floor panels has the following advantages:

Structural strength.
Lightweight.
Ideally suited for clean rooms.

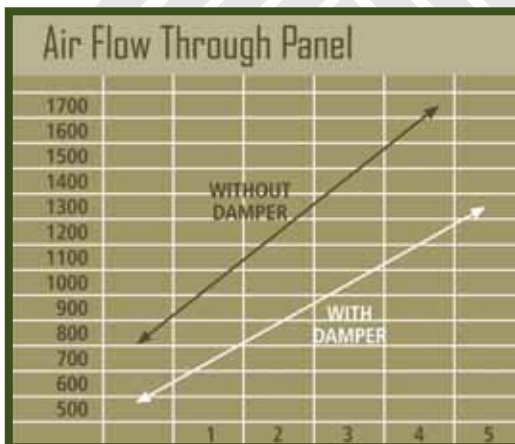
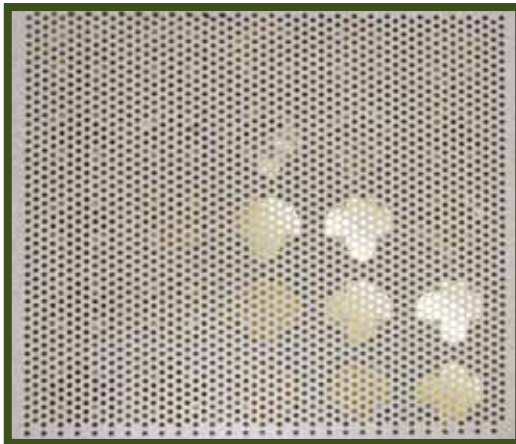
The Severn panels measure 600mm x 600mm and are assembled with a top skin spot welded to a perforated bottom skin.

The panels are non-combustible and are coated with a conductive paint.

Severn panels may also be fitted to any SolidFeel understructure and a wide range of floor covering are available.

**Severn: All-steel open cell construction*

SolidFeel Airflow Panel

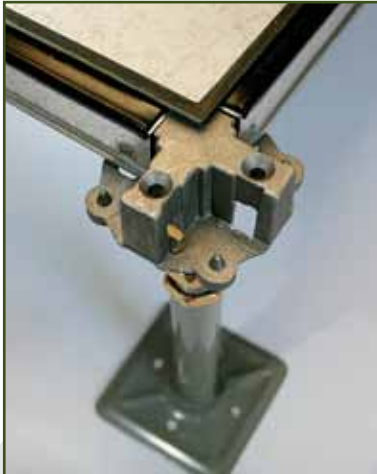




Freestanding System

Freestanding understructures utilise specially designed pedestal heads. A non-conductive gasket is placed on top of the head.

Freestanding systems are normally used in general office areas and finished floor heights not exceeding 500mm.



Snap-Loc System

Snap-Loc understructures are suitable for general office and computer application and provide high stability by utilising stringers that hold the floor and pedestal head in position when panels are removed.

Stringers snap on and off without tools. A non-conductive gasket is placed on top of the stringer.



Panel-Loc System

The all steel galvanized Panel-Loc System is suitable for general office applications. Each floor panel is mechanically fastened to the pedestal head at all four corners, ensuring rigidity and lateral stability.

By releasing the fasteners and lifting the panel, access is achieved. Each pedestal head has an adjustment-locking device to ensure that the pedestal height is maintained.

Screwdown System

Screwdown understructures are suitable for general office and computer applications and provide high stability by utilising stringers that hold the floor and pedestal head in position when the panels are removed.

In addition, this system has mechanical fasteners at the stringer/head interface.

The screwdown system is recommended for areas where high finished floor heights are required with improved lateral stability.

The Base Plate, Tube and Aluminium Head

ALUMINIUM HEAD

With 4 Locating pins and a rubber gasket

(refer to Freestanding System)

Base Plate - E-coated Steel

Dimension – 100mm x 100mm

Thickness – 1.8mm

TUVE – E-COATED STEEL

Outside diameter – 25mm

Wall thickness – 1.6mm

Length – depends on floor height

The Accessories

A variety of accessories are available which complement and enhance the range.
Contact your nearest Solidfeel distributor for details.

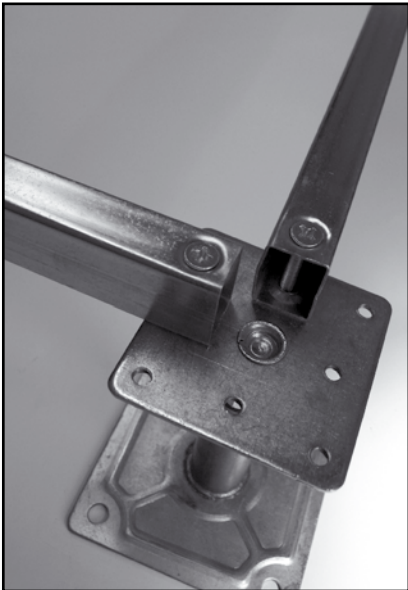
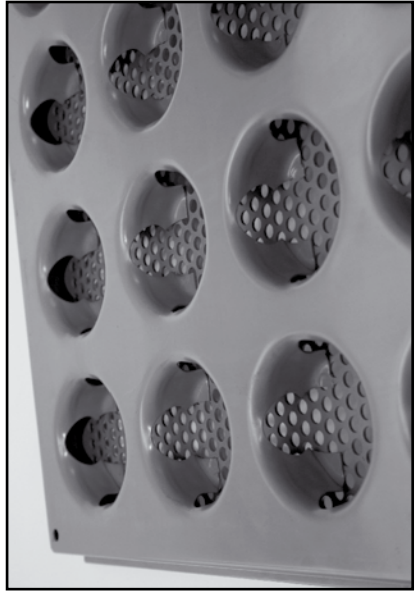


HPL - Factory Bonded

Coverings available in various colours

EDGE TRIM - Intergral Trim

Beveled, PVC.





SOLIDFEEL CLIENT LIST:

SOUTH AFRICA AND AFRICA

VODACOM
MTN
STANDARD BANK
ABSA
NEDBANK
RMB
FIRST NATIONAL BANK
SA RESERVE BANK
SARS
TELKOM
ALL MAJOR TELECOM CENTRE
BRITISH HIGH COMMISSION
BANK OF MAURITIUS
MINING INDUSTRY
VARIOUS CORPORATE HQ

INTERNATIONAL MARKET

UK

VARIOUS TELECOM CENTRES
CANARY WARF DEVELOPMENT

UAE

MINISTRY OF EDUCATION
DUBAI INTERNATIONAL AIRPORT
CRISIS CONTROL CENTRE
DUBAI MALL
GAMCO
DOLPHIN ENERGY
FINANCIAL CITY –VARIOUS OFFICE TOWERS

KUWAIT

OIL MINISTRY
KUWAIT GAS AND PETROLEUM.

QATAR

AL JAZEERA TV STATION
DOHA INTERNATIONAL AIRPORT

AUSTRALIA

SIEMENS
OAKLY ARMY BASE
VARIOUS MINES AND OFFICE DEVELOPMENT

SINGAPORE

AL MAJOR TELECOMS – 60,000sqm

During the past 25 years SOLIDFEEL/DONN access flooring has supplied in excess of 7 million sqm of access flooring world wide.