



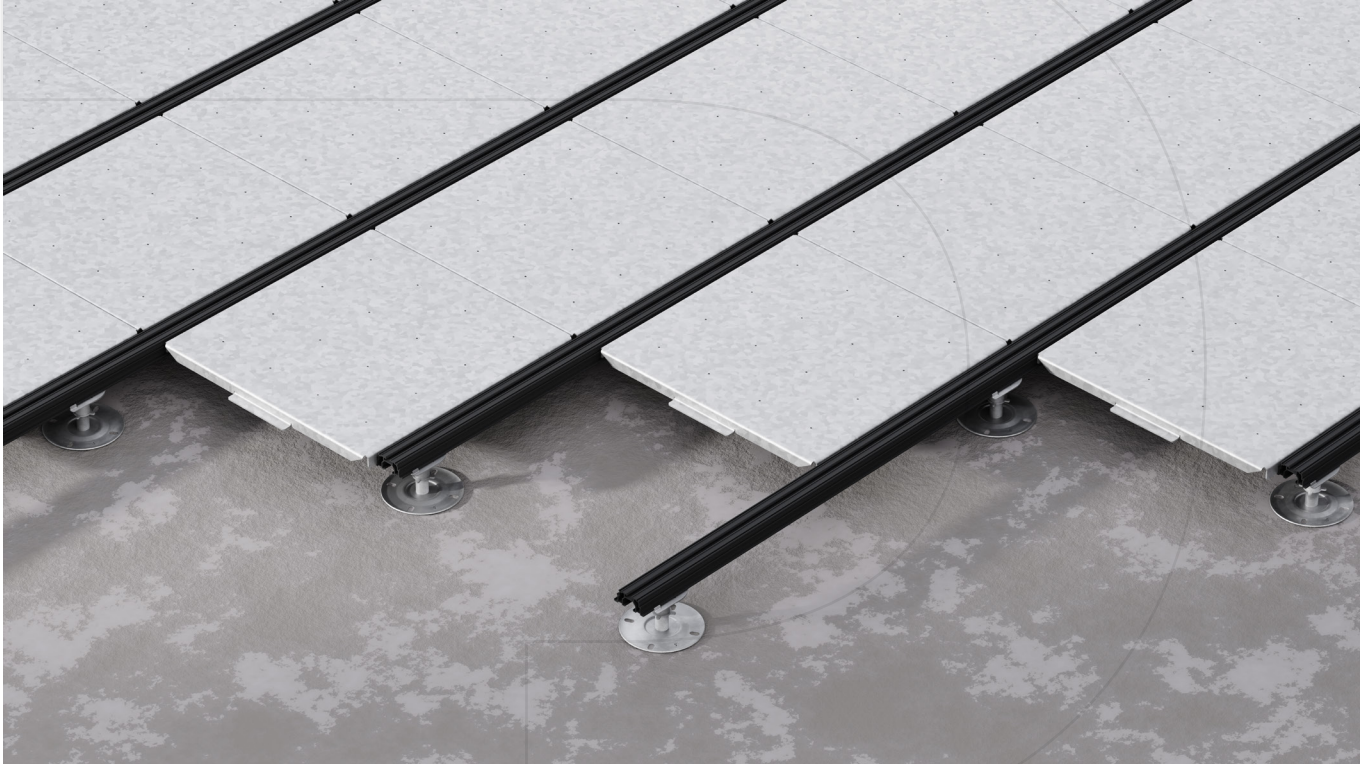
# STRUCTA FLOOR STRUCTURE PANELS

TECHNICAL DATA SHEET

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## TECHNICAL DATA SHEET



- Perforated steel floor panels work as part of the support structure system to provide a sturdy, permeable raised platform for laying surfaces, such as artificial grass and resin bound gravel, and installing planters off the ground, eliminating the need for a heavy, traditional, solid construction.
- Perforated Floor Structure Panels allow free drainage and eliminate the requirement for a drainage board
- Manufactured from high performance galvanised steel that displays excellent resistance to atmospheric corrosion
- Fast and easy installation to create a strong, stable, external raised floor structure
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- Fast and easy installation to create a strong, stable floor structure.

**Find out more or request a sample**

Email [sales@raftsystems.com](mailto:sales@raftsystems.com) or visit [raftsystems.com](http://raftsystems.com)

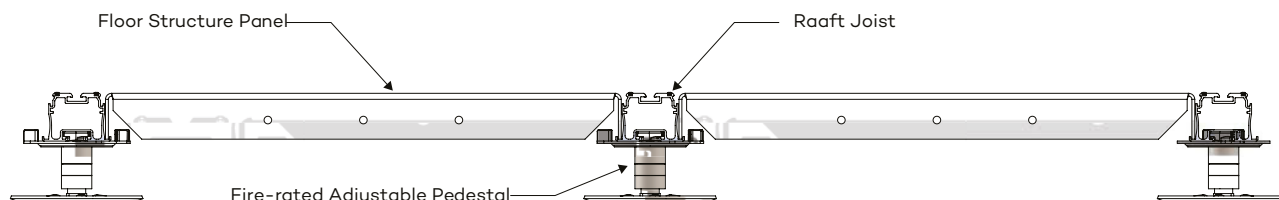
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### Dimensions

| TO FIT                              | MATERIAL         | RECYCLED CONTENT | LENGTH | WIDTH | DEPTH | WEIGHT | QTY PER PALLET | SKU    |
|-------------------------------------|------------------|------------------|--------|-------|-------|--------|----------------|--------|
| 50mm aluminium joist (weight 8.3kg) | Galvanised Steel | 100% recyclable  | 540mm  | 540mm | 48mm  | 8.8kg  | 100            | 320001 |
|                                     |                  |                  | 540mm  | 440mm | 48mm  | 7.3kg  | 100            | 320005 |
|                                     |                  |                  | 540mm  | 390mm | 48mm  | 6.6kg  | 100            | 320007 |
|                                     |                  |                  | 540mm  | 240mm | 48mm  | 4.4kg  | 100            | 320011 |
| 30mm aluminium joist (weight 7.8kg) | 100% recyclable  | 100% recyclable  | 540mm  | 540mm | 28mm  | 7.8kg  | 100            | 320003 |
|                                     |                  |                  | 540mm  | 440mm | 28mm  | 6.5kg  | 100            | 320006 |
|                                     |                  |                  | 540mm  | 390mm | 28mm  | 5.8kg  | 100            | 320008 |
|                                     |                  |                  | 540mm  | 240mm | 28mm  | 3.7kg  | 100            | 320012 |



### Works as part of the RAAFT terrace system

A key element of the system, these floor structure panels create a sturdy, level raised access floor which opens a huge amount of opportunities for creative terraces.

### Application

Roof terraces, balconies and other external areas. Manufactured from pre galvanised steel to provide a high performance solution in normal environments.

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### Loading analysis

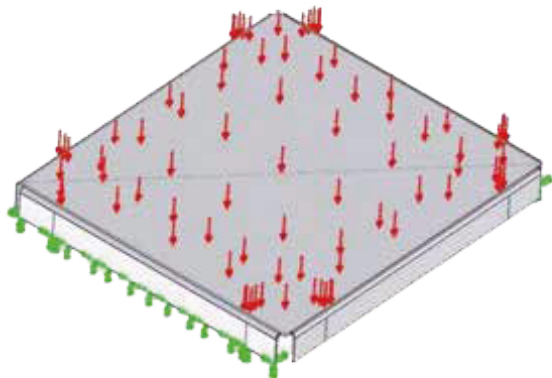
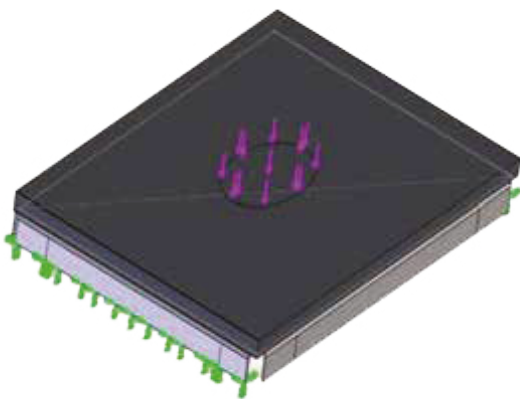
Loading analysis information has been collected using Finite Element Analysis. Please note the following information.

Point loading analysis on the Raft floor structure panels in mild steel, supported along its width by the Raft Joist system, and the surface covered in rubber to simulate safety surfacing.

In this instance, the tray will take a load of 150kg in the centre of the tile for a deflection of 5mm. Under these conditions the tray has a factor of safety of 1.5.

Soil loading analysis on Raft floor structure panels in mild steel, supported along its width by the Raft Joist system.

Soil load of 18kN/m<sup>2</sup>. The soil load of 18kN/m<sup>2</sup> will produce a maximum deflection of 6.6mm in the centre of the tray. However, the safety factor is only 0.9 giving a risk of failure under this loading. It would not be recommended to use mild steel for the trays unless the load is below 11kN/m<sup>2</sup>, i.e. 600mm soil depth.



### Storage and handling

Steel floor structure panels are typically palletized and wrapped to ensure stability during transport.

A single pallet will normally transport 50 floor panels.

Panels should ideally be stored in a sheltered location prior to installation however it will not detriment the items if this is not possible.

Installers should be aware of the edges of the steel panels in case they are sharp - protective gloves should be worn at all times when handling the panels.

The following guidelines may be useful:

- a) Each person should be fully trained in manual handling techniques.**
- b) The use of handling aids such as a trolley, folk-lift, pallet truck or conveyor should be used if moving large volumes of panels.**
- c) Break up large consignments into more manageable loads.**
- d) Ensure that the product is stored at a reasonable height, so avoiding the lifting of panels from floor level or above shoulder height.**
- e) Reduce carrying distances of panels.**

### Fire rated

Fire rated in accordance with BS EN 13501-1 to achieve a BROOF(t4) classification. Consult our certification documents for verification.

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