



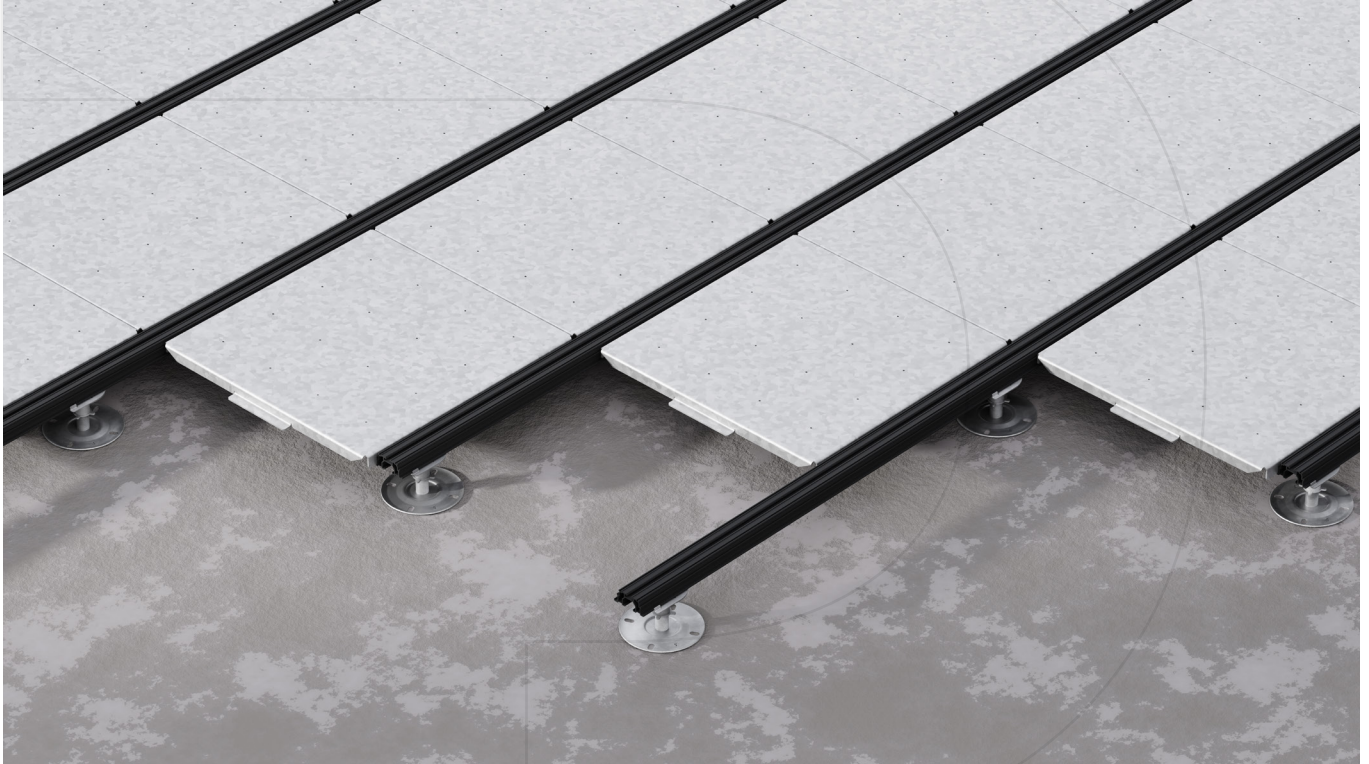
# STRUCTA FLOOR STRUCTURE PANELS

TECHNICAL DATA SHEET

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## TECHNICAL DATA SHEET



- Perforated steel floor panels function as part of the support structure, creating a strong, permeable raised platform for surface finishes such as artificial grass and resin-bound gravel. They also allow planters to be installed off the ground, eliminating the need for heavy, traditional solid construction.
- Perforated Floor Structure Panels allow free drainage and eliminate the requirement for a drainage board
- Manufactured from high performance galvanized 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 [hello@raftsystems.com](mailto:hello@raftsystems.com) or visit [raftsystems.com](https://raftsystems.com)

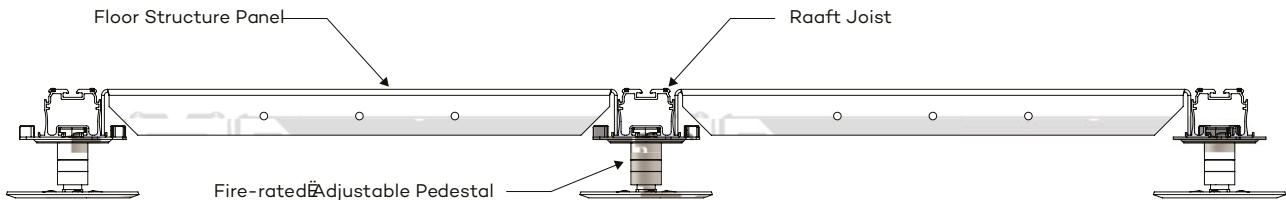
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### Dimensions

TO FIT	MATERIAL	RECYCLED CONTENT	LENGTH	WIDTH	DEPTH	WEIGHT	QTY PER PALLET	SKU
50mm (2.0 in) aluminum joist (weight 18.3 lbs)	Galvanized Steel	100% recyclable	540mm (21.3 in)	540mm (21.3 in)	48mm (1.9 in)	19.4 lbs	100	320001
			540mm (21.3 in)	440mm (17.3 in)	48mm (1.9 in)	16.1 lbs	100	320005
			540mm (21.3 in)	390mm (15.4 in)	48mm (1.9 in)	14.6 lbs	100	320007
			540mm (21.3 in)	240mm (9.5 in)	48mm (1.9 in)	9.7 lbs	100	320011
30mm (1.2 in) aluminum joist (weight 17.2 lbs)	100% recyclable	100% recyclable	540mm (21.3 in)	540mm (21.3 in)	28mm (1.1 in)	17.2 lbs	100	320003
			540mm (21.3 in)	440mm (17.3 in)	28mm (1.1 in)	14.3 lbs	100	320006
			540mm (21.3 in)	390mm (15.4 in)	28mm (1.1 in)	12.8 lbs	100	320008
			540mm (21.3 in)	240mm (9.5 in)	28mm (1.1 in)	8.2 lbs	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-galvanized steel to provide a high performance solution in normal environments.

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### Loading analysis

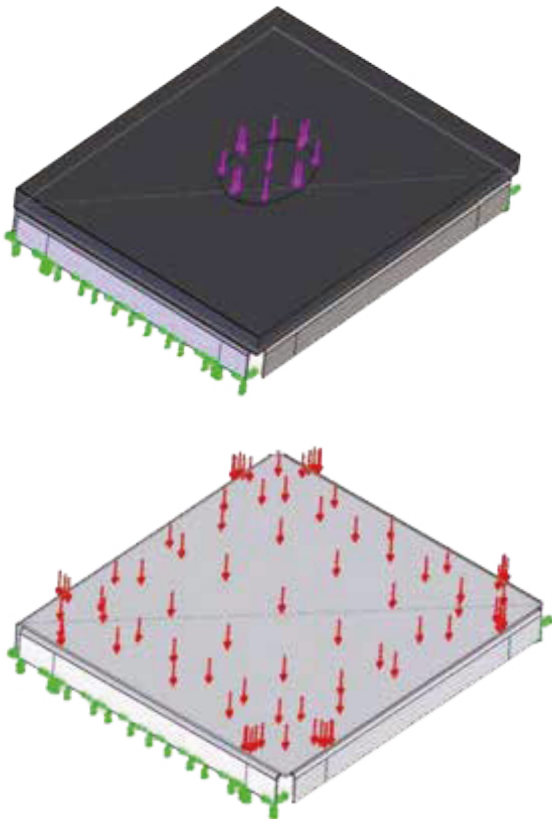
Loading analysis information has been collected using Finite Element Analysis (FEA). Please note the following information.

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

In this instance, the tray will take a load of 331 lbs in the center 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 Raafft floor structure panels in mild steel, supported along its width by the Raafft Joist system.

Soil load of  $18\text{kN/m}^2$ . The soil load of  $18\text{kN/m}^2$  will produce a maximum deflection of 6.6mm in the center 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  $11\text{kN/m}^2$ , i.e. 600mm (23.6 in) 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 cart, forklift, 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 to avoid lifting 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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