

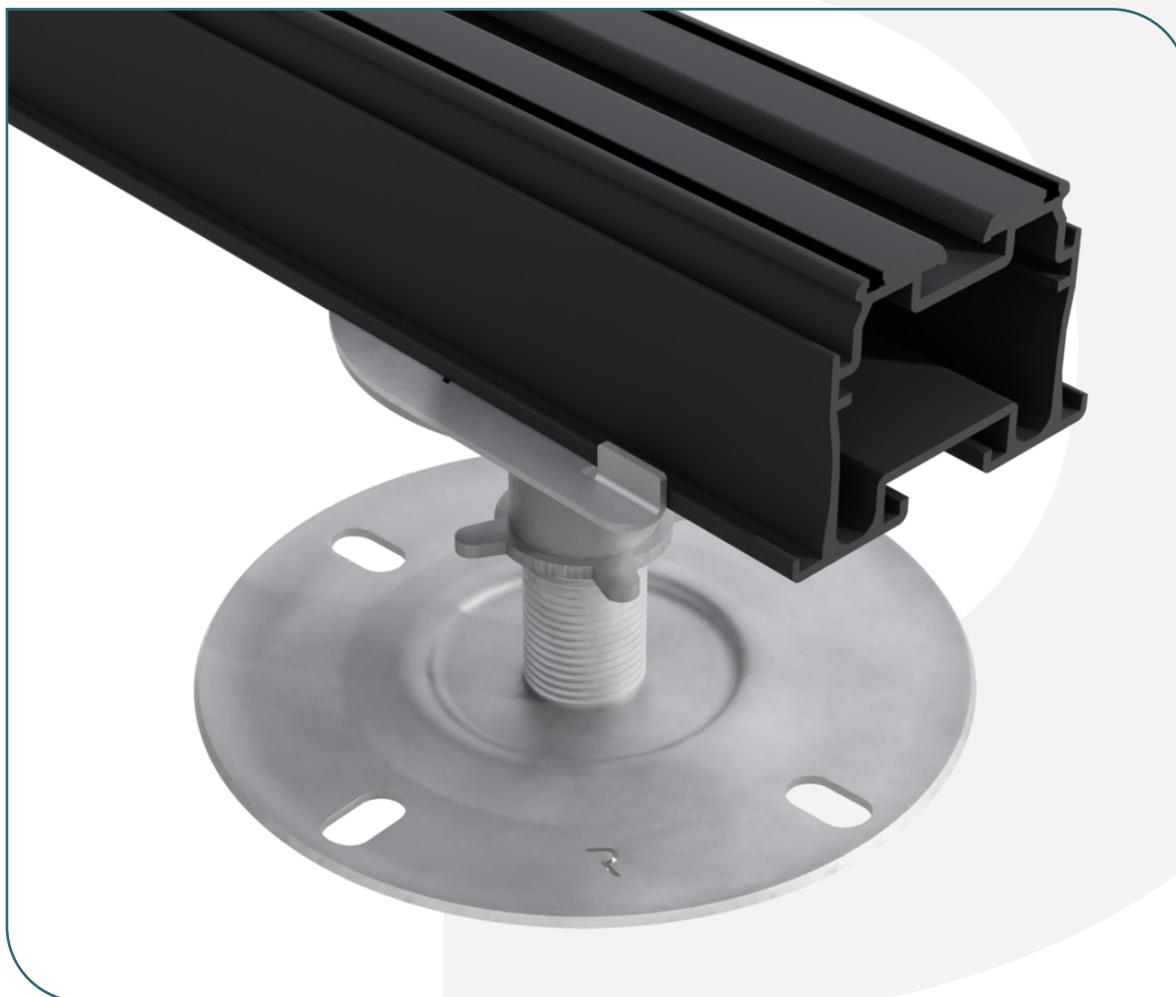
DATA SHEET  
Reference:  
DS-PAJ-0124

# Preventa® Aluminium Joists

Technical datasheet

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## Technical datasheet



Preventa® Aluminium Joists

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### PREVENTA® ALUMINIUM JOISTS

DIMENSIONS			MAX SPAN *	WEIGHT/ LENGTH	MAX CANTILEVER	MAX LOADING **	MATERIAL	FINISH	SKU
H	W	L							
30mm (1.18in)	60mm (2.36in)	2.4m (94.48in)	500mm (19.68in)	3.87kg (0.61 stone)	100mm (3.93in)	250kg (39.36 stone)	6063 T6 aluminium	Mill	301015
50mm (1.96in)	60mm (2.36in)	2.4m (94.48in)	900mm (35.43in)	4.2kg (0.66 stone)	200mm (7.87in)	295kg (46.45 stone)	6063 T6 aluminium	Powder Coated Black 9005	301010

\* Between supports, see overleaf

\*\* Point load based on Finite Element Analysis (FEA) with a x 1.5 factor of safety

### JOIST WEIGHT LOADINGS

JOIST HEIGHT	CENTRES (CL)	JOIST LOAD (kN)	SAFE WORKING LOAD (kN)
30mm (1.18in)	400 (15.74in)	2.812 (0.63 kipf)	2 (0.44 kipf)
	600 (23.62in)	1.054 (0.23 kipf)	0.8 (0.17 kipf)
	900 (35.43in)	0.624 (0.14 kipf)	0.4 (0.09 kipf)
50mm (1.96in)	400 (15.74in)	5.362 (1.20 kipf)	4.5 (1.01 kipf)
	600 (23.62in)	2.264 (0.50 kipf)	1.8 (0.40 kipf)
	900 (35.43in)	1.77 (0.39 kipf)	1.2 (0.26 kipf)

### MAXIMUM UNSUPPORTED SPANS

30mm Raaft® Joist



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### APPLICATION

Rigid aluminium extruded joist rails for use as a support structure system to decking and paving. Raaft® joists are designed to be used on roof terraces, balconies and other external podium construction areas.



### INSTALLATION INFORMATION

Introducing Raaft®'s revolutionary joist, a patented fixing-free system designed to establish a robust floating platform suitable for various finishing materials, with a particular emphasis on Raaft® porcelain tiles. This innovative solution incorporates our accessible wind uplift clipping system, enabling the pedestals to seamlessly rotate and securely engage with any accessory available from Raaft®. Crafted from aluminium, our joists are able to be cut to suit any situation and does not require coating of the cut due to its versatile material. The connectors are adaptable and can be cut to fit any scenario without compromising the integrity of the platform.

### PRODUCT FINISHES



Black powder  
coated

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### SUSTAINABILITY

Joists are manufactured from recycled aluminium (80% recycled content minimum) and are 100% recyclable. As a result the whole life cost of aluminium joists are excellent as they are sold for recycling not paid disposal. The 20% virgin aluminium is blended with the recycled content to help achieve the proper chemical content for the alloy specification, which gives the specified mechanical properties for strength. Scrap aluminium is a valuable resource and can be recycled repeatedly.

There are plenty of raw materials for the production of aluminium. In a variety of forms, aluminium compounds make up a full 8% of the Earth's crust. Bauxite is the main starting point in the production of aluminium and given current rates of production there is enough bauxite to last another 200 to 400 years, based on no increases in the use of recycled aluminium and no further discoveries of bauxite. Furthermore the volume of aluminium being recycled is at a level where the requirement for virgin alumina is decreasing – further lessening the environmental impact.

### PRODUCT MAINTENANCE

#### ALUMINIUM

The aluminum undergoes a black powder coating, minimizing maintenance requirements and mitigating the risk of galvanic corrosion.

### FIRE PROTECTION

Joists are manufactured from extruded aluminium alloy 6063A-T6 which is a non-combustible material deemed to be Class A in accordance with the European Commission decision of 4 October 1996 (Document: 96/603/EC). Approved Document B (Building Regulations relating to Fire Safety) states under Regulation 7(2) that the requirements on external walls and roof tops of buildings does not include seals, gaskets and fixings.

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### ACCESSORIES

#### TILE WALL SPACERS



Wall tile spacers are to be used when butting tiles against the edge of the building to avoid slipping of tiles and keeping a consistent 10mm (0.39in) gap around the perimeter.

#### 4MM 4-WAY SPACER TAB FOR JOISTS



RaafT® 4mm (0.15in) 4-way spacer tabs are designed to lock into the top of a joist creating a consistent 4mm (0.15in) gap between tiles, that are loose laid onto the RaafT® system.

#### 4MM 2-WAY SPACER TAB FOR JOISTS



RaafT® 4mm (0.15in) 2-way spacer tabs are designed to lock into the top of a joist creating a consistent 4mm (0.15in) gap between tiles, that are loose laid onto the RaafT® system.

#### STRAIGHT CONNECTORS



Utilized to align each joist seamlessly, ensuring a perfectly straight line.

#### 90-DEGREE CONNECTORS



Facilitate the creation of hatches and customized joist spacing. For instance, when the substructure intersects with a building's edge, these connectors enable secure tying of the substructure.

#### ANGULAR CONNECTORS



Offer adjustment of up to 45 degrees, facilitating the installation of perimeter rails where needed.