

DATA SHEET  
Reference:  
DS-CPWD-0424

# Curved planters

Technical datasheet

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Curved planter walls

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### PRODUCT INFORMATION

DIMENSIONS		OTHER	
Maximum straight panel length	2400mm (millimetres) 94.5" (inches)	Material specification	Corten A or Powder Coated
Maximum curved panel length	2400mm (millimetres) 94.5" (inches)	Corner types	Welded or bent
Height	300-1100mm (millimetres) 11.8" - 43.3" (inches)	Panel details	Single panel with straight and curved section permitted
Thickness	3mm (millimetres) 0.12" (inches)	Recycling	100% recyclable

### APPLICATION

Suitable for roof terraces, parks, playgrounds and many other external spaces. Curved planter walls have a high resistance to corrosive conditions in normal environments.

### INSTALLATION INFORMATION

Height can be consistent or varied within each panel, but the bottom edge must always sit level (which will require a stepped foundation on sloped sites). Please discuss your project with the Raft technical team to determine the most suitable installation method. No welding required.

General information can be found in the dedicated Installation Guide.

### PRODUCT FINISHES

Corten A is a type of weathering steel which was developed to remove the need for regular painting and rust-prevention maintenance.

This is achieved by the formation of a natural stable coating of dark brown oxidation across the metal's surface which acts as a barrier to the corrosive effects of rain, snow and other weather conditions. When delivered the Corten will contain mill-scale which will remove over time prior to the natural stable coating of dark brown being achieved. The weathering process can take around 18 months.

**Powder coating** starts with shot-blasting of the steel which removes mill-scale, oxide dirt, oil and grease from the substrate; followed by

a 7-stage zinc phosphate pre-treatment process for to prepare the surface. The product then receives the polyester powder coating to the requested colour. Polyester has excellent exterior durability and colour retention. Numerous colour options from world leading powder manufacturers are available.

Choose from these finishes:



Corten



PPC

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### SUSTAINABILITY

Curved planter walls are crafted from two material options: Untreated steel or Stainless Steel, and it boasts 100% recyclability. Consequently, Planterline stands out for its outstanding whole-life cost, as it is marketed with recycling in mind rather than incurring disposal costs. The primary component in steel production is iron, ranking second only to aluminium in terms of its natural abundance in the Earth's crust. Considering current extraction rates, there exists a sufficient iron supply to sustain production for well over 1000 years.

#### STEEL

Mild steel is widely recognized as a sustainable material for several compelling reasons:

##### 1. Longevity and Durability

Mild steel boasts exceptional longevity and durability. When compared to less robust materials, it provides extended service over many years. For instance, while other materials may require annual replacement, using mild steel every five years significantly reduces the environmental impact, as it necessitates less energy for continuous replacement.

##### 2. Versatility

Mild steel offers high versatility in terms of shapes and sizes during production. Its malleability allows it to take on various forms, making it highly adaptable and suitable for a wide range of applications.

##### 3. Recyclability

One of the most significant sustainable advantages of mild steel is its recyclability. While the percentage of recyclable content may vary by type, it typically contains a high percentage of recyclable material. This aligns seamlessly with its versatility, as any surplus steel from manufacturing processes can be repurposed for smaller products or recycled, making it an environmentally friendly metal choice.

##### 4. Absence of Harmful Chemicals

Unlike some other metals, the production of mild steel does not involve the release of harmful chemicals or toxins. This characteristic contributes to its eco-friendliness.

### PRODUCT MAINTENANCE

#### STEEL

For Curved planter walls, the steel is powder coated. This will require little/no maintenance as there won't be any interaction between this part of the product and the user.

### FIRE PROTECTION

Curved planter walls are made using Corten A, or Mild Steel, neither of which burn nor pose a fire hazard.

Corten A is high performance materials that display excellent resistance to atmospheric corrosion when compared to other steels, making them exceptionally suitable for bespoke planter applications.

### PROTECTIVE EQUIPMENT

We recommend that PPE (Personal Protective Equipment) is used when installing the Curved planter walls:

- a) Good strong safety boots/shoes to protect the feet.
- b) Protective eyewear such as safety glasses.
- c) Strong gloves to protect the hands.
- d) If using loud cutting equipment then ear plugs or defenders should be worn.

### STORAGE AND HANDLING

The product is securely packed and sealed in clear plastic sleeving to ensure no movement of the product in transit. Depending on the size/weight of the consignment this may be palletised.

Whilst there is no specific weight restrictions on what is or is not safe to lift in manual handling, an assessment of the health and safety risks should be undertaken and measures taken to reduce the risk of injury so far as reasonably practicable.

The following guidelines may be useful:

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- 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 cartons.
- 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 cartons from floor level or above shoulder height.

### SHEET MATERIAL TOLERANCES

- a) CorTen A steel materials class A EN10029
- b) This confirms a thickness tolerance for 6mm (millimetres), 0.24" (inches) of lower -0.4 to upper +1.1
- c) Sheet width tolerance for panels between 600 – 2000mm (millimetres), 23.62 - 78.74" (inches) are + 20mm (millimetres), 0/78" (inches)
- d) Sheet length tolerance for panels up to 4000mm (millimetres), 157.48" (inches) are + 20mm (millimetres), 0/78" (inches)
- e) Flatness tolerance - the minimum yield strength of hot rolled CorTen A steel is 355 N/mm<sup>2</sup> which makes it steel type L. A 2000mm (millimetres), 78.74" (inches) length has a flatness tolerance for 6mm (millimetres), 0.24" (inches) thickness material of 12mm (millimetres), 0.47" (inches).

### FABRICATION

- a) At fabrication stage the sheet is laser cut to length and height to the requirements of the project. The tolerance for a laser cut sheet is +/- 2mm (millimetres), +/- 0.08" (inches).
- b) The sheet is folded top and bottom to our design and all folds are subject to a tolerance of +/- 2mm (millimetres), +/- 0.08" (inches) – the folds will only ever improve the flatness of the sheet
- c) Vertical brackets are welded to the back of the panel – again these brackets will only ever improve the flatness of the sheet
- d) The 2mm, 0.08" (inches) tolerances mentioned above are included on our production drawing