

# A Technical Guide for Specifiers

This is a comparative guide to IOTA's ranges, addressing issues typically of concern to specifiers in the private and public sector, under the following headings:

1. Supply Chain
2. Weights, Dimensions and Volumes
3. Manufacturing Quality and Guarantees
4. Environment Suitability
5. Chemical Staining and Graffiti
6. Protection Against Theft
7. Custom Manufacture
8. Direct Ex-Factory Supply
9. Use of IOTA Planters in Interiors

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## 1. Supply Chain

IOTA's management is intimately engaged in every aspect of the company's supply chain – from design origination, to manufacturing, to delivery. 'IOTA' products are exclusive and designed in-house, and protected under various trademarks, design rights etc. Manufacturing is via dedicated supply contracts with companies in the northern Asia Pacific region (China, Philippines, Vietnam and Taiwan), and IOTA can arrange shipping worldwide.

The relationships between IOTA and its dedicated manufacturers are long-standing and based on genuine 'partnership' principles. As a result, predictability and security of supply is high, and IOTA is routinely engaged in delivering specified orders 'on time, to budget, and to the agreed quality standard'.

## 2. Weights, Dimensions and Volumes

A comprehensive catalogue can be downloaded from IOTA's website, and this catalogue details the weights and dimensions for all IOTA products. In addition, the planter range catalogue details the internal volumes for each individual planter – information which can be used to aid plant selection, and to assist budgeting for project materials.

All measurements given in the catalogues are according to the metric system (centimeters, kilograms, litres). To convert to imperial measurements, a range of resources are readily available on-line – such as: [www.onlineconversion.com](http://www.onlineconversion.com)

## 3. Manufacturing Quality and Guarantees

All IOTA products carry a fully-comprehensive five-year guarantee against manufacturing defect, and all planters are guaranteed frost-**proof** for the same period (any frost damage, and the planter will be refunded in full or replaced free-of-charge).

In reality, IOTA's products should last not just five years, but for decades, as manufacturing quality standards are exacting. For example, on the natural stone planter ranges:

- **Adhesives:** glues used are specialist 2-pack epoxy resins, designed specifically for stone.
- **Corner Details:** all corners are mitred – both for aesthetic reasons, and to enhance bonding integrity.
- **Additional Supports:** on the largest planter sizes, stone 'fillet' sections are bonded across the joins internally to provide additional security.
- **Thickness:** stone thicknesses up to 25mm [1 inch] are used to guarantee structural integrity and maximise impact resistance.
- **Sealing:** Planters are sealed internally to prevent water ingress, the most common cause of frost damage to planters.

IOTA's other ranges are made to similarly high-quality standards as the stone planters, and further details of their manufacturing specification is given in the section below.

## 4. Environment Suitability

The product catalogues summarise IOTA's recommendation as to which ranges are suitable for which environments. A more detailed comparative analysis follows below:

### Granite planters

These planters are recommended for all environments, including public spaces (such as city centres and other municipal areas). Granite is the strongest, most dense, and most impact-resistant of the stones used by IOTA, and its uniform granular composition means that minor damage is not readily apparent. Granite is also the stone in which the largest sizes can be fabricated – and the solid construction and considerable weight of IOTA's extra-large planters makes them particularly appropriate for municipal areas.

### Slate planters

These planters are also recommended for most environments, up to heavy commercial use. Slate is an extremely forgiving material, as the naturally uneven surface means that small areas of damage are not apparent. Like Marmoris, Slate is also essentially as strong as Granite in normal usage. However, Slate is a friable stone created from sedimentary layers, and it is susceptible to fracture if deliberately abused. Therefore Slate is not recommended for the most challenging of municipal environments.

### Manhattan planters

These planters are recommended for residential or light commercial use (such as offices, hotels, restaurants etc...). Despite being extremely lightweight, Lexington is a remarkably strong GRP material, with the forms being expertly layered up by hand from woven fiberglass (not chopped mat). The external painting is also of the highest specification: built up first with two layers of epoxy primer, followed by multiple layers of industrial melamine paint. The resulting external finish is extremely hardwearing and UV-colourfast. However, as with any painted surface, misuse can scratch the surface, and such damage will be highly visible. For this reason, Manhattan is recommended for residential or light commercial use, but it is not recommended for heavy commercial environments. In addition, Lexington's light weight may limit its use in weather-exposed environments, unless suitably weighted or securely fastened-down.

### Venice planters

These planters are also recommended for residential or light commercial use. A mid-weight range, Venice is a unique composite material, being cement-based and reinforced internally with natural plant fibers. Structurally Venice is very sound, and it carries the same five year frost-proof guarantee as all other IOTA planters. However Venice is a form of decorative cement, and its properties are similar to more familiar analogous materials like polished cement or terrazzo – specifically, exposed edges can be chipped. Therefore Venice is best suited to residential or light commercial use, and it is not recommended for heavy commercial environments.

## 5. Chemical Staining and Graffiti

With the exception of Manhattan (painted GRP) IOTA's planters are made from either natural stone or cement-composite. Although neither class of material is highly porous, nonetheless both will provide a surface key to chemical stains and graffiti. The resulting damage can be recovered, but it is rarely commercially viable to do so. Therefore it is recommended that IOTA planters should not be specified in 'extreme urban' environments where graffiti is an identified problem within the brief.

## 6. Protection Against Theft

As previously described, IOTA's largest planters have a solid construction and considerable weight, making them effectively theft-proof without the need for fixing. All other IOTA products can be readily secured against theft, in a wide variety of ways.

To give one example:

IOTA's planters all have large drainage holes in the base, and the bases are raised off the ground internally by around 5cm [to assist drainage]. Commonly, designers and contractors will fix the planters down to prevent theft, by using this drainage hole as an attachment point to a ground anchor. One option is to use an eye-bolt sleeve anchor attached to a bent bar threaded through the drainage hole.

## **7. Custom Manufacture**

IOTA undertakes custom manufacture in natural stone and fiberglass planters. In addition to the materials used in standard product ranges, custom stone types and colours are also available.

There are no strict minimums, however custom manufacture is only commercially-viable for pallet quantities (a pallet quantity could be anything from 1 to 100 pieces, depending on the design). Lead times are generally 8-12 weeks. Certain other constraints apply:

### **Dimensions**

In all of the natural stones, one dimension of each side requires to be 70cm or less, as this is the cutting bench width. This means, for example, that a stone trough planter can be made which is H 70 W 200 D 100cm, as this is made from side sections which are 70x200 and 70x100cm. However, a stone trough planter cannot be made which is H 100 W 200 D 70cm.

### **Stone Selection**

Other than the above constraint, Granite planters can be made in large custom sizes at consistently attractive prices. Custom manufacture in Slate is also undertaken, but it is a difficult stone to fabricate in sizes much larger than the standard range.

For a custom manufacture quotation, and/or to discuss a brief, please contact Nicholas Jones at IOTA.

## **8. Direct Ex-Factory Supply**

All IOTA Australia products are held in stock in either the Sunshine Coast or Brisbane warehouse, so the company is usually able to meet urgent delivery deadlines. On larger projects, IOTA can supply direct container shipments at ex-factory prices delivered anywhere in the world, and IOTA can handle all shipping and importation issues.