

# GRC PLANTERS COMPARED TO PRECAST CONCRETE / BLOCKWORK / FORMWORK

Project estimators, contract managers and project managers are often faced with a decision to choose between GRC planters, cast concrete planters or some form of blockwork or formwork as part of the landscaping for their projects. Depending on the circumstances of the project, each of these options may be appropriate. However, this information sheet has been prepared to provide the reader with a summary of some of the key benefits of choosing GRC planters ahead of cast concrete, blockwork, or formwork planter boxes.

## ■ Advantages of Precast GRC Planters V's Precast Concrete Planters

Precast concrete planters have many of the same attributes as precast GRC planters. However, the big differences between the two are: -

### **Weight**

Precast concrete planters need to be cast with much thicker, and therefore heavier, walls than what is required with GRC planters to achieve the same level of flexural strength. As a result, GRC planters can be between 30% and 50% lighter than the same size pre-cast concrete planters. This reduction in weight can be a significant advantage in managing the installation process and with the calculations for weight restrictions on high rise buildings.

### **Planting Space**

The thicker walls on precast concrete planters significantly reduces their inside planting space compared to precast GRC planters that have the same external dimensions.

## ■ Advantages of Precast GRC Planters V's Blockwork and Formwork

### **Convenience & Flexibility**

Since GRC planters are precast at a factory, they arrive at a landscaping site on a designated date ready to install. And this date can

generally be changed if the project is either early or late. This flexibility can be very convenient when everyone is busy at the end of a project and the pressure is on to complete.

### **Simplifying Project Management**

Using prefabricated planters avoids the practical issues associated with scheduling and managing on-site tradesmen and the associated inconvenience of having their equipment and raw materials on site when there are all sorts of other tradesmen on site towards the end of a project.

### **Independence to Slab - Waterproofing**

Precast GRC planters do not form part of the building slab and therefore will not develop hairline cracks over time due to movement in the slab. This is possibly the most important benefit of precast GRC planters over blockwork and formwork because hairline cracks facilitate water leakage. And the last thing you want to have to do is remove all the vegetation and planting medium from a large blockwork planter to find an elusive crack that is enabling water leakage.

### **Comparatively Lightweight**

GRC planters are very strong due to the inclusion of glass fiber reinforcement. Therefore, the walls of the planters can be made much thinner than blockwork and formwork to achieve similar strength. This enables GRC planters to be much lighter and more suitable to balconies and other areas where weight is an issue.

### **Quality - Waterproofing**

Manufacturing off-site allows for the use of optimum conditions for producing the highest quality concrete planters. On-site concrete mixing is less controllable and does not always provide optimum concrete strength and density which are important in avoiding water leakage.

### **Finishing Options**

Satu Bumi's Product Engineering Team can work to the individual design intent of just about any project in the design and finish of planters. This means the available options for shape, colour, texture, and size of planters is much greater than what can generally be achieved with on-site blockwork or formwork.

## **Consistent Planter Form**

Professionally built molds mean that each product will retain an identical form with high degree of detail in the finish.

## **Modularity**

Precast GRC planters are modular. Therefore, unlike blockwork and formwork, they can be moved if the landscape requirements change over time.

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