

BALUSTRADES INCORPORATING GRC PLANTERS

The use of GRC planters as balustrades or incorporated into balustrade designs, with or without attached or adjoining handrails, is becoming quite popular. Therefore, this information sheet has been prepared to provide Satu Bumi customers with a summary of some of the practical issues that should be taken into consideration when choosing GRC planters for use in balustrade designs.

For clarification, Satu Bumi does not market a full generic balustrade solution. Satu Bumi manufactures custom designed GRC planters to connect appropriately with any third-party balustrade supplier.

Basic Minimum Balustrade Requirements

In accordance with Building Code Australia (BCA) regulations the following points are minimum requirements for balcony balustrades: -

- They must be at least one meter high as measured from the finished floor level.
- Any vertical openings must not be more than 125mm.
- They must be able to withstand loads and impacts in accordance with the AS1170.1 standard.
- They must not contain horizontal elements that could be used for climbing that are between 150mm and 760 mm from the finished floor level.

Fire Rating Considerations

Consideration needs to be given to the fire rating of the GRC planters with respect to the design of the balustrades: -

- If the planters are going to be located on the outside edge of a building the planters will probably require an AS1530.1 fire rating.
- If the planters are going to be located on the inside of a separate balustrade, the GRC planters will probably only require an AS1530.3 fire rating.

Balustrade Designs

GRC planters are very strong and can be designed to enable balustrades to be attached to their top, front, or sides. In addition, the planters themselves will generally require a design to mechanically fix them to a slab and/or wall.



THESE ARE EXAMPLES OF SATU BUMI GRC PLANTERS INCORPORATED INTO BALUSTRADE DESIGNS

Balustrade Certification

If any part of a balustrade design requires a physical attachment to GRC planters, Satu Bumi's Product Engineering Team will need to create the appropriate design drawings, and in most cases make a prototype and complete stress testing of the design at the factory. Then the strength and stability of the final design will require third party engineering certification.

Design Timeframe

The incorporation of GRC planters into a balustrade design can be an aesthetically pleasing and practical option for balconies. However, the whole design, testing, certification, and manufacturing process takes considerable time. Therefore, it is strongly recommended that the process is commenced very early on in a construction project's timeline.

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