

GFR NATURAL-GRAIN PARK BOLLARDS

SOLID RECYCLED-PLASTIC INFRASTRUCTURE

Distinctive timber-like grain • Individually varied finish

Proposed complete natural-grain package: \$125 AUD

A DISTINCTIVE NATURAL FINISH



Actual GFR consolidated material
Cut faces reveal individual cross-directional grain patterns.
Natural appearance varies from bollard to bollard.

SOLID CONSTRUCTION — VISUAL COMPARISON

CONVENTIONAL RECYCLED-PLASTIC BOLLARDS

TYPICALLY MANUFACTURED BY MELTING AND MOULDING

HOLLOW SECTION – PRONE TO DAMAGE

Typical hollow recycled-plastic bollards installed in public areas.

Fractured section showing hollow internal cavity.

Broken section showing thin wall construction.

Damaged bollards requiring replacement.

COMMON ISSUES WITH HOLLOW PLASTIC BOLLARDS

- Hollow construction can crack or fracture on impact.
- Thin walls reduce structural strength.
- Difficult to repair once damaged.
- Often manufactured from single-stream recycled plastic.
- Limited suitability for high-impact or heavy-duty applications.

GFR SOLID RECYCLED-PLASTIC BOLLARDS

CUT FROM A SOLID BLOCK OF 100% RECYCLED PLASTIC MATERIALS

CONTROLLED THERMAL CONSOLIDATION – BONDED LAYERS – SOLID CONSTRUCTION

GFR consolidated waste-plastic block showing bonded layers and solid structure.

Solid recycled-plastic material cut from consolidated block.

GFR RECYCLED-PLASTIC BOLLARD

Solid construction cut from consolidated waste-plastic block.

Fitted into a galvanised steel sleeve for strength, stability and easy replacement.

Steel sleeve installed in concrete or ground.

Finished GFR bollard ready for service.

BENEFITS OF GFR SOLID RECYCLED-PLASTIC BOLLARDS

- ✓ Cut from a solid block of 100% recycled plastic materials.
- ✓ Bonds layers of mixed and difficult-to-recycle plastics.
- ✓ Solid construction suitable for heavy-duty applications.
- ✓ Installed in a galvanised steel sleeve for strength and replaceability.
- ✓ Utilises waste materials that may have limited conventional recycling pathways.

GFR
GREEN FROG REVOLUTION

TRANSFORMING WASTE INTO USEFUL PRODUCTS
A CLEANER PLANET. SMARTER RESOURCES. REAL FUTURE.

Examples of hollow-profile bollards compared with GFR solid material.
Not all conventional recycled-plastic bollards are hollow.
Images illustrate construction differences, not certified impact performance.

ONE STANDARD PARK BOLLARD

SOLID PLASTIC BOLLARD 125 × 125 × 900 mm

GALVANISED STEEL SLEEVE 140 mm square OD × 600 mm long

Natural timber-like grain

Optional uniform painted finish

Replaceable sleeve-based installation concept

Final exposed height, sleeve fit and footing engineering subject to confirmation.

STRAIGHTFORWARD PROPOSED PRICING

NATURAL-GRAIN BOLLARD	\$100
GALVANISED STEEL SLEEVE	\$25
COMPLETE NATURAL PACKAGE	\$125
OPTIONAL PAINTED FINISH	+\$25
COMPLETE PAINTED PACKAGE	\$150

AUD indicative selling prices; GST, delivery and installation to be confirmed.

WASTE PLASTIC TO USEFUL INFRASTRUCTURE

GFR produces consolidated solid blocks from mixed industrial waste plastic. Finished bollards are cut from the blocks.

Potential benefit: redirect difficult-to-recycle plastic waste toward durable infrastructure products.

Actual landfill-diversion quantities and environmental performance require documented verification.

COUNCIL & PARK APPLICATIONS

Potential uses

Parks and recreation reserves

Landscaped boundaries

Pedestrian-area delineation

Industrial and commercial sites

Suitability depends on council requirements, installation engineering, mechanical performance and material safety testing.

PRODUCT ENQUIRIES

GREEN FROG REVOLUTION

Natural-Grain Solid Recycled-Plastic Bollards

Standard size: 125 × 125 × 900 mm

Proposed package price: \$125 AUD

Painted package: \$150 AUD

Product specifications and installation approval subject to final validation.