

FRP Grating for Boardwalks

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Introduction

Boardwalks are typically exposed to the full extremes of weather, enduring a range of challenges that can lead to premature degradation. Such conditions regularly result in mechanical damage, shrinkage cracks, fastener-initiated splitting, biological decay (rotting), and degradation by UV light. Any boardwalk decking material must thus be tough, durable, stable, and safe in all conditions.

In practically every respect, Fiberglass Reinforced Plastic (FRP) grating is the clear leader as the premier deck material for constructing boardwalk decks, offering unparalleled durability, safety, and longevity, plus displaying a clear advantage in reduced maintenance requirements and overall lifetime cost.

Archatrak SpanTrak grating panels are specifically manufactured for boardwalks, walkways and elevated decks using selected resins and additives to guarantee exceptional service life, durability and fire resistance in the most demanding conditions. From sensitive desert environments exposed to extreme temperatures to bleak, coastal viewing platforms lashed by constant salt spray, Archatrak SpanTrak grating panels are designed to provide safe, secure footing for pedestrians, day in, day out, maintenance free and looking as smart and neat as they day they were installed.

Benefits of SpanTrak FRP Grating for Boardwalks

Significantly Safer

- » Safe, all year-round pedestrian use - dry, wet or icy.
- » Exceptionally slip resistant gritted surface.
- » No slipping hazard for bike riders on wet bridge decks.
- » No tripping on decayed, twisted or loose wood planks.
- » No danger from splinters on beach access ramps and stairs.

Structurally Strong

- » Very high impact resistance.
- » More resilient than steel.
- » Very high strength to weight ratio
- » Less than half the weight of steel.

Excellent Fire Resistance

- » Rated NFPA Class A under ASTM E84.
- » Flame spread index of 8 (Class A rating requires < 25).
- » Smoke Developed Index of 200 (Class A rating requires < 450).
- » More fire resistant than any wood species - hardwood or softwood.



Highly Durable & Hard Wearing

- » SpanTrak FRP survives the most harsh, inhospitable environments.
- » Does not corrode or rust.
- » Does not decay or rot.
- » Highly resistant to mold, mildew, and moss.
- » Not attacked by termites or marine borers.
- » Lifetime of 20-50 years depending on site conditions .



Safest Surface for Coastal Boardwalks

- » Unaffected by constant salt spray.
- » Safer for steps and stairways.
- » No corrosion, rusting or decay from salt spray.
- » Exceptional slip resistance in constantly damp conditions.
- » Avoids buildup of sand on beachfront boardwalks.



Greater Pedestrian Comfort

- » Slight springy feel offers enhanced pedestrian comfort.
- » Smooth, even surface for trolleys, wheelchairs and prams.
- » Fully ADA compliant surfaces.
- » Large panels reduce tripping concerns.



Lower Environmental Impact in Sensitive Areas

- » Allows sunlight to reach vegetation below.
- » No obstruction to rapid rainfall runoff.
- » Maintains free airflow around the deck.
- » No leaching of wood preservative chemicals into soils or waterways.



Faster and Easier Construction

- » Large panel size speeds installation.
- » Panels can be cut on site or prefabricated off site.
- » No special tools needed to cut, shape and install.
- » Far fewer fixings required – panels need securing only every 24” approx.
- » Reduced need for heavy machinery minimizes damage to sensitive sites.
- » Panels can be hand carried to the project site if necessary.



Lower Maintenance & Lifetime Cost

- » No need to constantly replace damaged or decayed planks.
- » Minimizes access closures for essential repairs.
- » Reduces need to constantly inspect deck fixing for safety issues.
- » Panels can be easily replaced if damaged.
- » Better for remote locations where access is difficult or restricted.

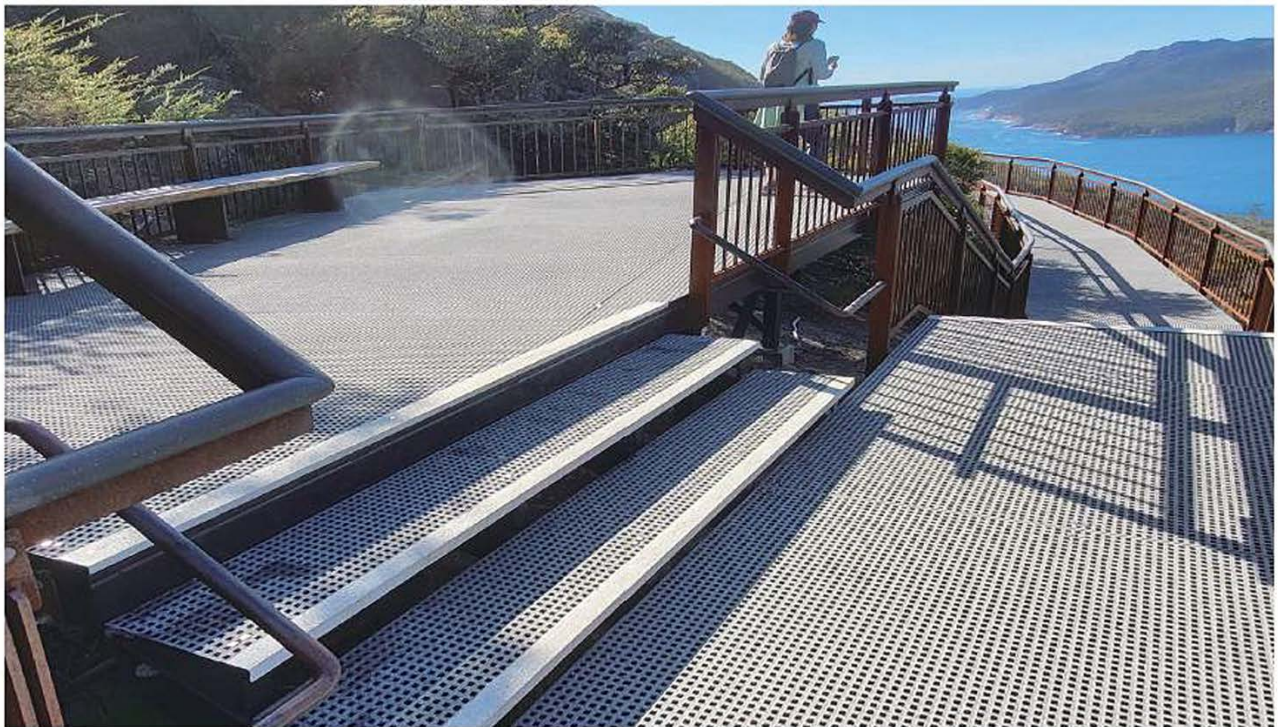
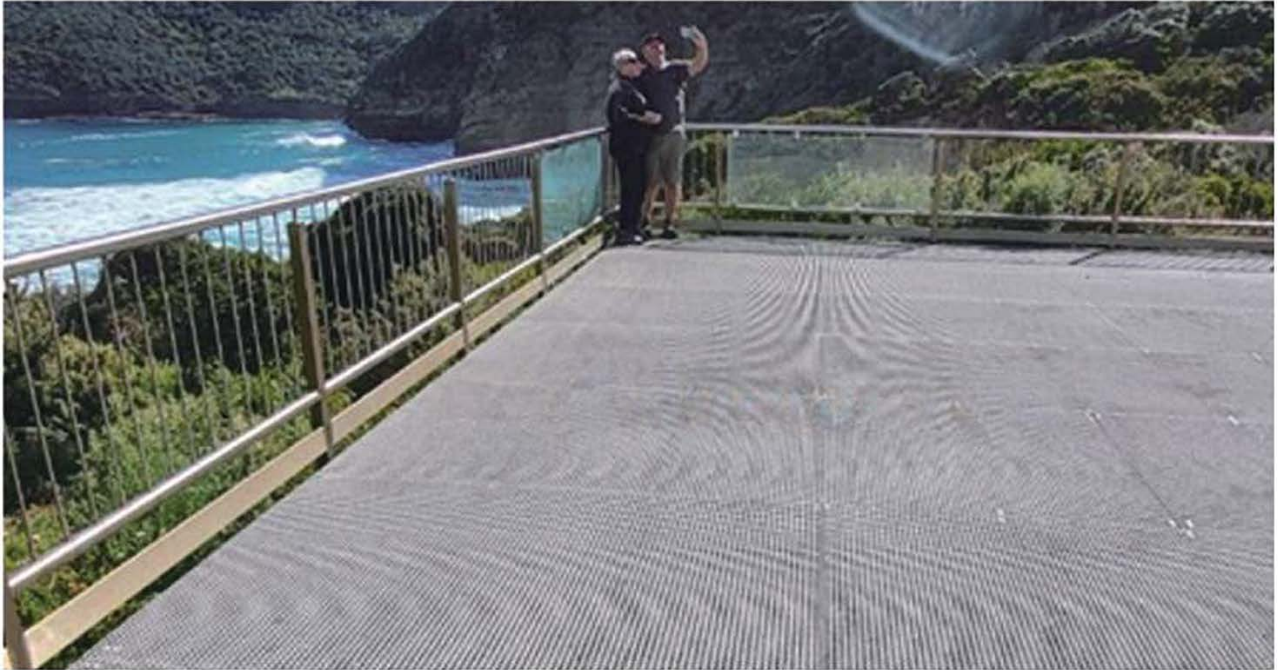


Aesthetics

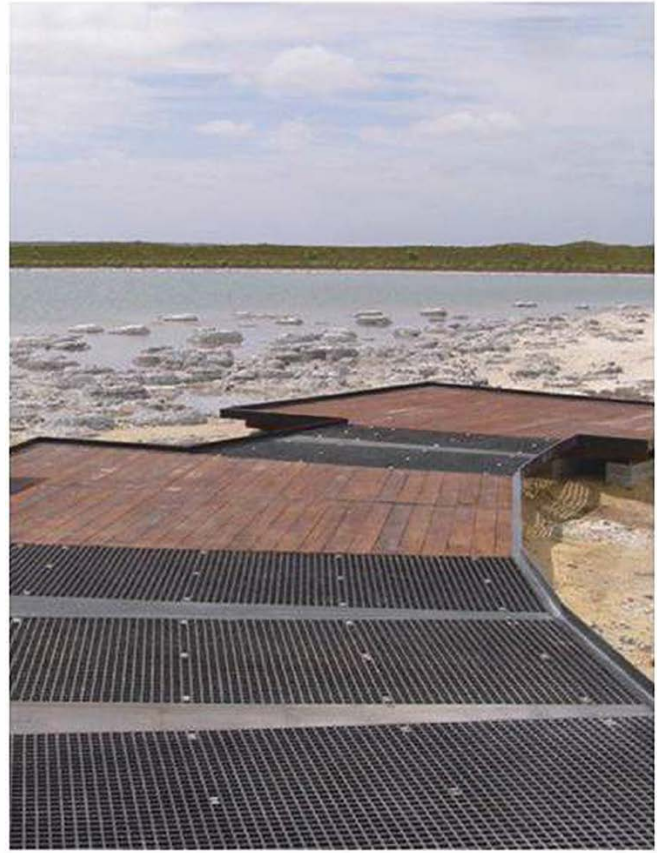
- » Sleek, uniform, modern look.
- » Can be supplied in any color to blend with the local environment.
- » Can be combined with other materials - wood, steel, composite wood.
- » Can be supplied with gritted edge strips for extra safety.
- » Different grid sizes can be supplied to suit specific applications.
- » No fading, color change or degradation in appearance.

Applications for SpanTrak boardwalk grating

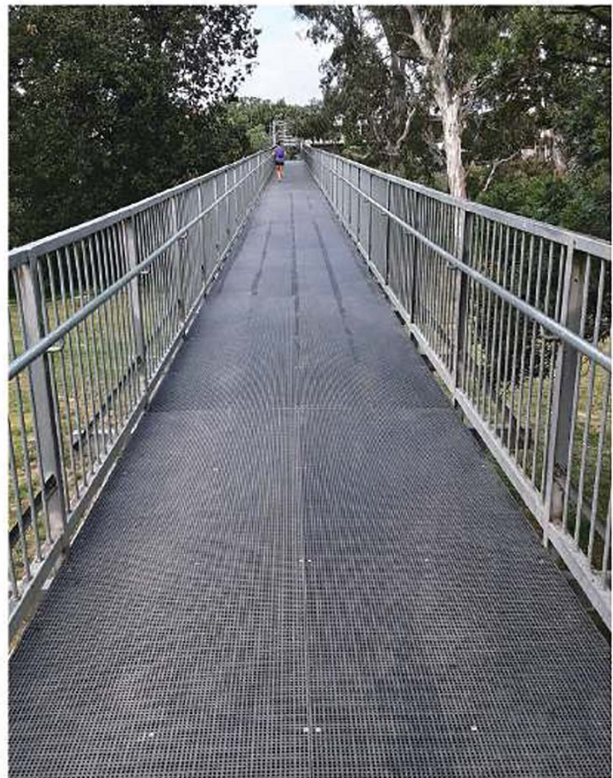
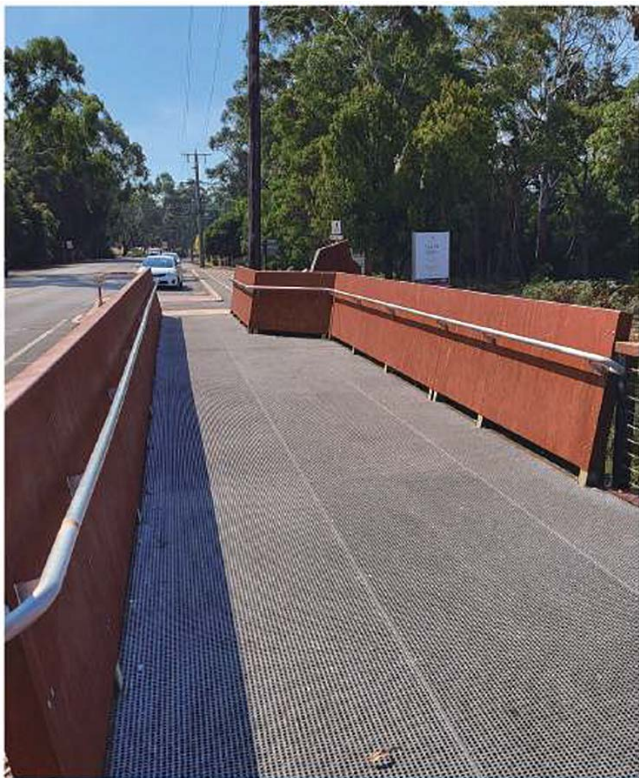
Viewing Platforms



Coastal and Lakes

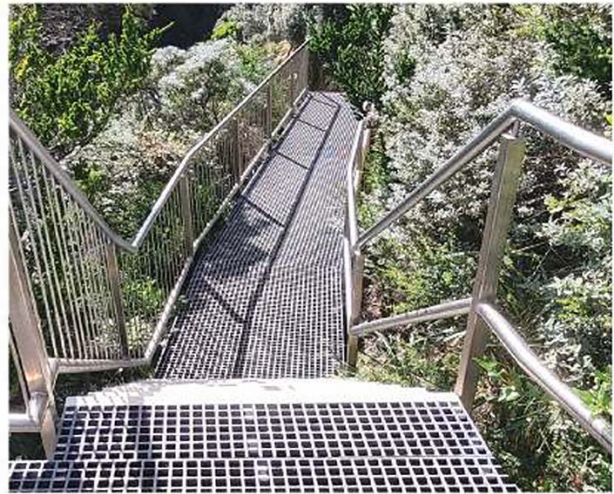


Bridges & Bridge Resurfacing





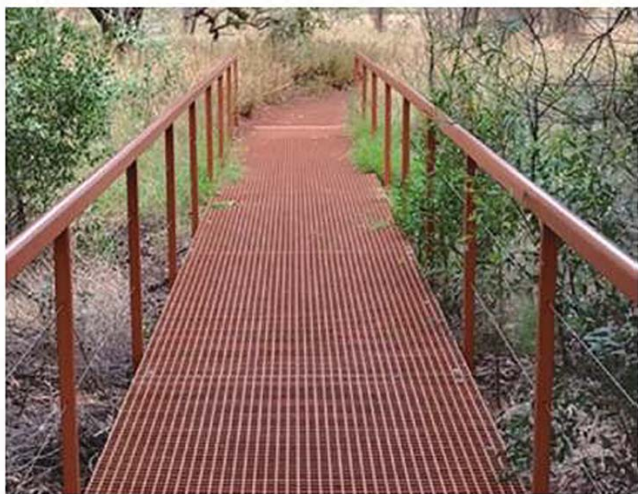
Stairways



Access Ramps



Environmentally Sensitive Sites



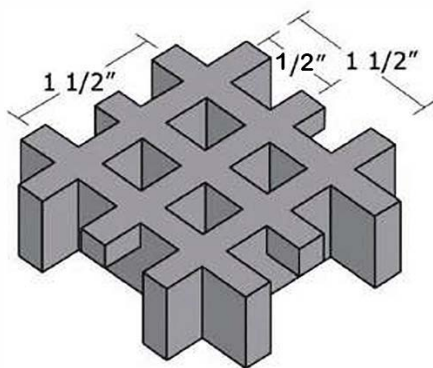
TECHNICAL DETAILS OF SPANTRAK GRATING

Material Composition



Resin	: Type-I isophthalic polyester, industrial grade UV stabilized, fire retardant
Filler	: Aluminum hydroxide
Glass fiber content	: approx. 35%
Color	: Traffic grey (RAL 7043) - std. Other colors on special order.
Surface finish	: Anti-slip bonded quartz grit

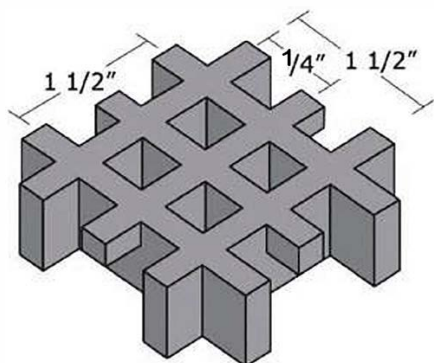
Grid Size Options



SpanTrak MidiMesh

1 1/2" x 1 1/2" primary load bars with an intermediate cross bar at the top of the grating, 1/2" deep giving apertures of 1/2" x 1/2".

MidiMesh grating panels are typically preferred for elevated public walkways, especially in parks and reserves, as well as pedestrian access decking on docks, piers, boat lifts, pontoons and jetties.



SpanTrak MiniMesh

1 1/2" x 1 1/2" primary load bars with two intermediate crossbars at the top of the grating, 1/2" deep, giving apertures of 1/4" x 1/4".

This smaller aperture mesh is recommended for 'pedestrian-friendly' walkways frequented by pet walkers, strollers, carts, other small, wheeled vehicles and especially high heel shoe wearers.

SpanTrak Grating Specifications

	MidiMesh	MiniMesh
Primary grid bars	1 ½ x 1 ½" (on center)	1 ½" x 1 ½" (on center)
Secondary grid bars	¾" x ¾" (on center)	½" x ½" (on center)
Aperture	½" x ½"	¼" x ¼"
Load bar thickness	¼" (primary) ¼" (secondary)	¼" (primary) 3/16" (secondary)
Open space	42%	30%
Panel height	1 ¼"	1 ¼"
Panel size	4' x 8'	4' x 8'
Weight	3.5 lb/sq.ft	4.5 lb/sq.ft.


Panel dimensions may vary by up to 1/8". Allowances should be made for this manufacturing tolerance when constructing frames to contain panels.



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