



**BENEFITS OF INTEGRALLY PIGMENTED FRP GRATING & PULTRUSIONS**



# NatureTREAD™ FRP Composite Solutions



Johnsons Beach, Tasmania

NatureTREAD™ Fibreglass Reinforced Plastic (FRP) solutions utilise the Treadwell range of structural profiles and grating, constructed from specially formulated resin systems.

Treadwell resin systems offered are developed to suit the application and environment in which the product is installed. This takes into consideration exposure to the elements, UV corrosion resistance, and also fire retardancy properties.

**Eliminate** the need for a painted surface.  
**Combat corrosion** and achieve *minimal maintenance*.

Treadwell FRP structural sections and grating products are manufactured using glass rovings with a tensile strength of >500,000 PSI. Treadwell FRP products are constructed with integral UV stabilisers and colour pigmentation. These stabilisers limit UV degradation to 0.1%. This, along with integrally formulated pigment means that whilst the surface of the product may fade over the lifetime of the structure, it will do so consistently and without compromising the structural integrity.

## Minimise your fire risk with fire retardant properties integrated into the product.

All Treadwell FRP structural sections are fire retardant to ASTM E84.1 and have been tested to AS/ISO9239.1 2003 Reaction to Fire Tests for Floorings Part 1 Delamination of the Burning Behaviour Using a Radiant Heat Source.

As required by specification C1.10 of the Building Code of Australia. The results of the test are as follows:

<b>Specimen 1</b>	Length Direction	Critical Radiant Flux	10.9k W/m <sup>2</sup>
<b>Specimen 2</b>	Width Direction	Critical Radiant Flux	11.0k W/m <sup>2</sup>

Treadwell FRP products are also tested according to AS 1530.3. Test report available upon request.

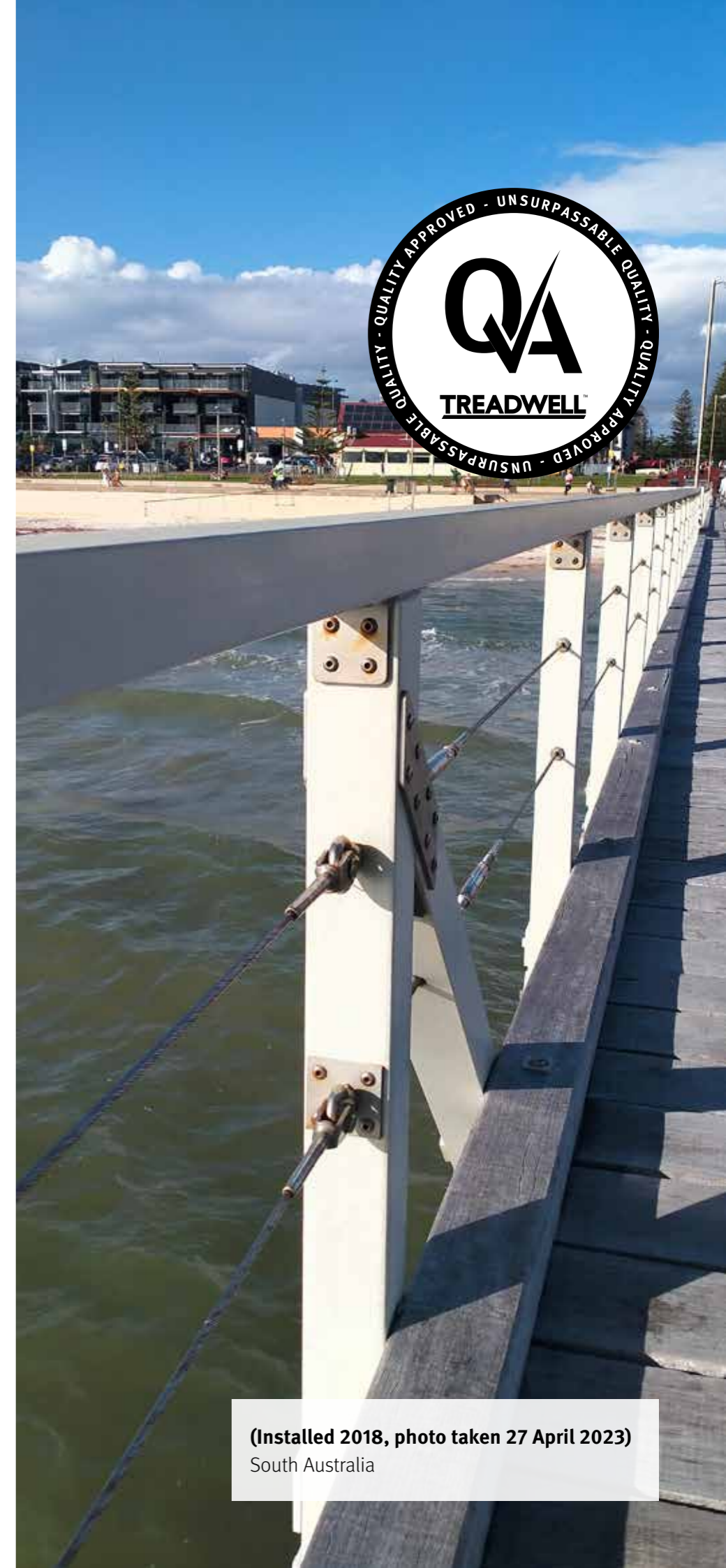


## Treadwell FRP Integral Pigment Structural Sections



The resin systems for Treadwell FRP pultruded structural sections are integrally pigmented. This allows for the desired colour to be throughout the entire section.

Treadwell's unique surface finishing system ensures UV stability in exposed applications, directly eliminating the need for costly surface treatment.



**(Installed 2018, photo taken 27 April 2023)**  
South Australia



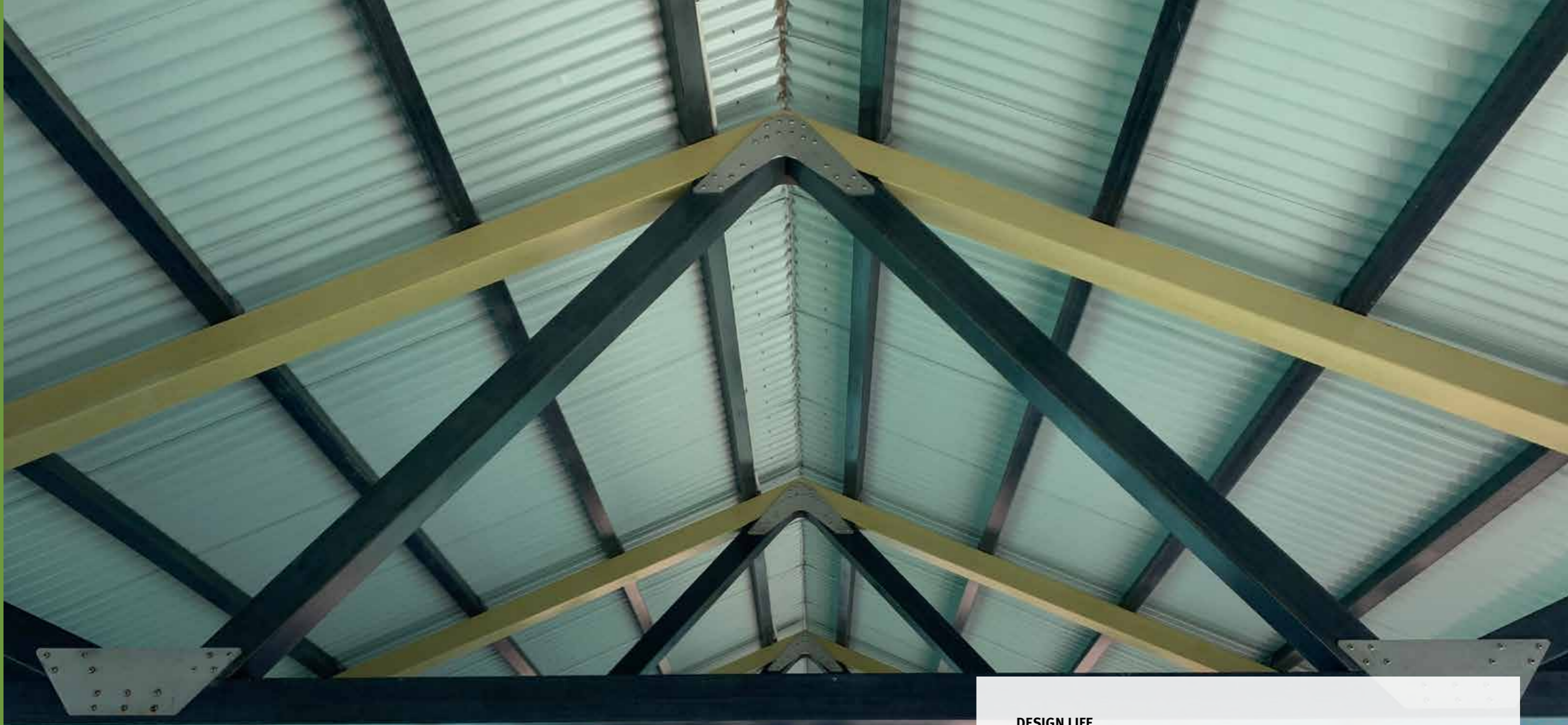
## Competitor's FRP Structural Sections

**Alternative Section with Surface Coating**  
**(Installed 2018, photo taken 27 April 2023)**  
South Australia

Experience has shown that using the natural resin colour and applying a paint coating can result in delamination of the coating from the structural section. This imagery demonstrates how easily a painted surface can delaminate in a marine environment.

This is caused by sand blasting (abrasion from wind). Having the necessary additives in the resin system (i.e. UV stabilisers and pigments) rather than in the paint coating provides stability within the section throughout its life.

This image shows how the natural resin yellows when subjected to the extreme UV exposure experienced in Australia. The white area shows the natural colour of the resin before it is exposed. The paint coating has flaked off.



#### **DESIGN LIFE**

Treadwell is able to offer solutions suiting a variety of design life requirements. For example, Treadwell premium V-Series® pultruded structural sections carry a fifty-five+ (55+) year (case proven) design life. NATA Laboratories show that with accelerated testing, the estimated design life exceeds one hundred (100) years.

#### **MAINTENANCE**

Further to this, Treadwell NatureTREAD™ FRP Solutions are virtually maintenance free. What this means is that there are no maintenance requirements required with the Treadwell range of structural sections.

We do, however, recommend that a regular product maintenance inspection regime is employed, and that connection hardware is checked periodically to prevent movement of sections. If sections are damaged due to vandalism and glass fibres are exposed, these simply need to be resealed with an EX-Series® Resin Seal Kit. Refer to EX-Series® Maintenance Manual for instructions.


TW


TW

TW

TW

## Contact Us

 1800 246 800 (AU) 0800 246 600 (NZ)

 [sales@naturetread.com](mailto:sales@naturetread.com)

 [naturetread.com](http://naturetread.com)