



Performance  
in Extreme  
Marine  
Environment



**Case Study**  
Wiggins Island Coal Export Terminal  
(WICET)

# Extreme Marine Environment

## Case Study: Wiggins island

The Wiggins Island Coal Export Terminal project is the construction of a new coal export terminal in Gladstone Queensland. Stage one provides 27 million tonnes per annum of new export capacity from the Port of Gladstone and includes a rail receival yard incorporating a 5.6km over land covered conveyor, a stock yard area including transfer towers, surge bin and sample plant all leading to the 2km long over water jetty including single ship berth and loader. The design and specification of the project was completed by Aurecon Hatch. The project was divided into packages for delivery, the jetty, off shore conveyor galleries, and ship berth were pre-assembled in Dalian China under a joint venture between Monadelphous, and Muhibbah Marine. Using our experience with previous project delivery in China BlueScope Permalite were able to work closely with all parties in the joint venture to ensure seamless supply and delivery of products. The stock yard portion of the project was delivered by John Holland the installation of the cladding and purlins taking place on site in Gladstone, the rail receival yard and overland conveyor were constructed by Sun Engineering and were also installed on site in Gladstone. The final piece of the puzzle was the ship loader which was constructed in Malaysia by Favel Favco. The installation of the roofing and cladding to the various switch rooms and machinery rooms for the ship loader took place in Malaysia. BlueScope Permalite were able to call upon previous experience on Dalrymple Bay, Abbot Point, and Hay Point Coal Terminals to assist all parties involved in the project providing assistance with the initial design, quantity surveying, supply chain development, technical advice and on a number of occasions travelling to Gladstone and China to provide onsite technical and installation training and support to the relevant sub contracted trades.

BlueScope Permalite® supplied a range of products including in excess of 50,000m<sup>2</sup> of LT7 roof and wall sheeting pre-painted Shale Grey® on the top side and a high gloss lighter colour named Cloud Grey on the underside to enable greater light reflectivity.

Over 25000lm of Permalite® aluminium purlins & girts were also used on the structure this assisted in the design brief for minimum weight and maximise component fit. Utilising our previous experience with coal terminal projects and designs Permalite® developed a floor plank extrusion which incorporated a safety kick rail, this product development saved the contractor an enormous amount of labour man hours and assisted in the timely delivery of the project. Permalite® products ensure ongoing maintenance free performance in the aggressive industrial/marine environment.

The assistance in design, product development and onsite technical support provided by BlueScope Permalite on the WICET project enabled the delivery of material to the pre-assembly yards to be on time, in-full and in good condition. This we feel contributed to the project maintaining its initial completion target. BlueScope Permalite maintains a good working relationship with all of the relevant contractors involved in the WICET project.

**Client: Port of Gladstone**  
**Project Manager: John Holland**  
**Location: Gladstone, Qld**  
**Scope: Industrial Structure in extreme marine environment**



## Experience counts

Our structures have already proven themselves in harsh marine environments:

- Significantly longer service life
- Backed by Permalite Warranty
- Excellent value for money

## Permalite Aluminium Building Products

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