



CASE STUDY

# Wilmar Sugar

## Aquacon™ 345 Dam Cover



# THE BRIEF

**PROJECT**  
Aquacon™ Dam Cover  
for Wilmar Sugar

**CLIENT**  
Darling Downs  
Tarpaulins (DDT),  
Wilmar Sugar

**LOCATION**  
Sirena, QLD

**PRODUCT**  
Aquacon™ 345

Wilmar Sugar is Australia's largest manufacturer of raw and refined sugar products, and a leader in renewable energy, biofuel and sustainable agricultural products.

When it came to the supply and manufacture of a dam tarpaulin which needed to cover the area of five football fields, Wilmar Sugar Australia turned to the team at Darling Downs Tarpaulins (DDT).

The Wilmar Sugar dams are used to store Bio Dunder which is the liquid co-product of ethanol.

Due to the large area to be covered, Wilmar's BioEthanol team asked DDT to use GALE Pacific's market leading Aquacon™ 345 material, and that it be fabricated into eight sections, each approximately 4,000m<sup>2</sup>.



# THE SOLUTION

BASED IN TOOWOOMBA, THE DDT TEAM GOT TO WORK  
MAPPING OUT A SOLUTION.



First, the covers were welded using a 40mm hot wedge welder.

From there, the team transported the covers to a local Toowoomba showground to refold the covers, ensuring ease of deployment on site.

Two sections of covers had a pocket stitched across the leading edge and a series of air tubes were fabricated to slide into the pockets. This assisted with towing the leading edge across the dam's Bio Dunder material.

Man handling and positioning such a large cover can be challenging but particularly so when the site experienced high winds and heavy rain during the installation process. There was also a small installation window due to a fast-approaching monsoon which is a common event in the region.

Two DDT staff members travelled to the North Queensland site to oversee the installation. The eight prefabricated sections were unrolled on the bank

and progressively welded together and towed across the dam using winches that had been specifically set up for the project.

A central pontoon was constructed to split the dam cover into two more manageable portions, and to offer better access and control during installation. The cover was anchored to the pontoon and sandbagged around the sides. The sandbags were also manufactured out of Aquacon™ 345 by DDT.

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*Aquacon 345 was chosen for its long life, durability, ease of fabrication and resistance to wicking. Also, for its buoyancy on the product.*

**Michael Ryan**  
Managing Director, Darling Downs Tarpaulins

# THE RESULT

## THE AQUACON™ 345 PRODUCT WAS A PERFECT SOLUTION FOR THIS DAM COVER APPLICATION.

The material is a lightweight polyethylene material including a woven reinforcing scrim, which provides dimensional stability along with high puncture, tear and tensile performance properties.

The excellent chemical resistance and advanced coating technology result in excellent welding and layflat characteristics. Aquacon™ 345 is a 100% recyclable material ensuring

minimum impact on the environment, and it's BPA free with no chlorine or heavy metals used in the production of the product.

Lightweight, flexible and durable, Aquacon™ 345 exhibits class leading welding characteristics, providing effective and efficient field welding performance, making it ideal for in-factory fabrication and deployment on-site.



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