





## TOUGH IN THE SUN

Designed to exceed the Australian Standards, Alkatuff® is Australia's answer to strong and durable resin for use in arguably one of the world's toughest environments. A line by line comparison of Alkatuff® performance against the Australian Tank Standard proves its superior performance across a range of factors including long service life, high resistance to impact and abrasion, high tolerance to environmental stress cracking and long term resistance to UV degradation.

## TIME PROVEN PERFORMANCE

The Australian tank market was slow moving until Qenos got involved. Alkatuff® was designed to exceed the AS4766 standard and with its unique combination of easy moulding and superior in-service performance it ignited the poly tank market and has been driving it ever since.

## PROCESSABILITY MADE EASIER

Alkatuff® resin has a broad processing window creating two important benefits:

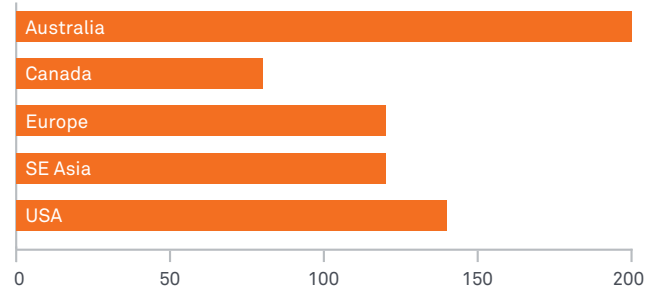
- It sinters readily, with easier release and low warpage
- It has high thermal stability making it less prone to oxidation, discolouration and loss of toughness whilst remaining tolerant of moulding process variation.



## OUTSTANDING UV RESISTANCE

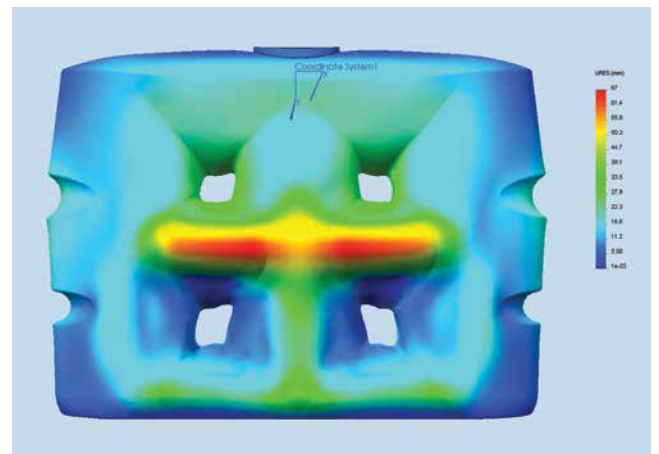
The standard for UV performance requirement specified in AS/NZS4766 PE tanks for the storage of chemicals and water is 8,000 hours of uninterrupted exposure to an intense and specifically developed UV light source. Alkatuff® 711UV achieves more than double this performance requirement with 20,000 hours.

Average solar radiation kLy (kcal/cm<sup>2</sup>/year)



## C6 TOUGHNESS AND RESILIENCE

With a hexene (C6) comonomer, Alkatuff® resin is more resistant to Australia's unrelenting environment than a butene (C4) resin. Tanks need the high impact strength and superior stress crack resistance that a C6 resin provides. Alkatuff® C6 has a broader processing window providing a more forgiving resin for moulding.





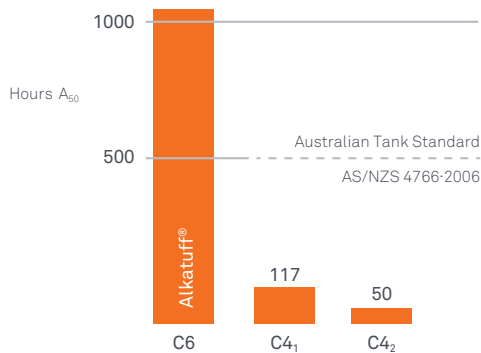


## EXCEEDS THE ESCR STANDARD

The Environmental Stress Crack Resistance (ESCR) requirement of AS4766 stipulates 500 hours of performance, whilst Alkatuff® delivers ESCR performance in excess of 1000 hours.

This means that tanks made with Alkatuff® resins holding both chemicals and water will last the distance through superior resistance to stress cracking.

Environmental Stress Crack Resistance  
(Density = 0.938 kg/cm<sup>3</sup>, MI = 3.0)



Tested under ASTM D1693 100% Igepal condition A

## ALKATUFF® LL711UV

- Alkatuff® has a UV performance level of UV20 which is more than twice the Australian standard requirement of UV8.
- Alkatuff® tanks deliver twice the Environmental Stress Crack Resistance (ESCR) requirement of AS4766.
- Alkatuff® uses C6 as opposed to C4, for extra strength and resistance against stress cracking.
- Alkatuff® has high thermal stability making it less prone to oxidation, discolouration and loss of toughness.
- Alkatuff® has been supplied to Australian tank manufacturers for over 20 years and has a proven track record of success.
- Alkatuff® is Australian made and has proven performance in Australian Conditions.
- Alkatuff® polyethylene is supported by local technical service and extensive technical data ensuring the design of your tank can be optimised.

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WITH ITS UNIQUE COMBINATION OF EASY MOULDING AND SUPERIOR IN-SERVICE PERFORMANCE, ALKATUFF® IGNITED THE POLY TANK MARKET AND HAS BEEN DRIVING IT EVER SINCE.

## BETTER DATA HELPS BUILD BETTER PRODUCTS

Genos Alkatuff® resin is supported with comprehensive technical data to assist manufacturers in designing the best products. Extensive engineering design data including creep data for Finite Element Analysis (FEA) modeling as well as multiple stress and temperature strain data can be provided to enable you to maximise your product's potential. Genos has developed its own test methodology for determining creep data for rotationally moulded applications and provides customers with the most accurate and up to date information.



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