



Reporter

Issue 8 September 2016

Derakane™/Husab

The range of Derakane™ epoxy vinylester resins distributed by **add resins** are the worlds original epoxy vinylester resins and remain the market leader globally. Backed by some 50 years of research, technical knowledge and case histories, Derakane™ resins continue to deliver exceptional, reliable and consistent performance. In this edition we look at the Husab Uranium Project and some of the work that Fibre-Wound SA are doing using Derakane™ resins.

In addition to the Derakane™ resins, a large quantity of ADDpox™ CHR1 epoxy resin was used in the flooring system at Husab.

When it comes to corrosion-resistant fibre reinforced plastic (FRP) tanks, pipes, pultruded profiles, ducting and custom components, Ashland's Derakane™ resins have defined a legacy of excellence in FRP applications from chemical processing, water treatment and pollution control, to mineral processing and pulp and paper. Derakane™ epoxy vinylester resins deliver exceptional:

Durability

Superior heat resistance

Low maintenance

High performance

With unparalleled depth in resin choices, Ashland can determine the right processing and performance characteristics for nearly any corrosion resistant application.



Location/Year

Manufactured in 2015 for Swakop Uranium Husab Mine, Namibia, in South Africa.

Fabricator

Fibre-Wound, South Africa.

Fabrication

The pipes and fittings were manufactured with **Derakane™ 411-350** epoxy vinylester resin. Pipes were manufactured by filament winding and fittings by hand lay-up method.

Some pipes had to be conductive in the internal and external layer, which was realized with carbon powder. These pipes were manufactured with the fire retardant **Derakane™ 510C-350** epoxy vinylester resin in the outer layer as per specification.

Technical Data

5943m (3.69mi) Piping ranging in size from DN 25 to 450 (ND1 to 18 in).

2578 No. Fittings from DN 25 to 450 (ND1 to ND 8in).

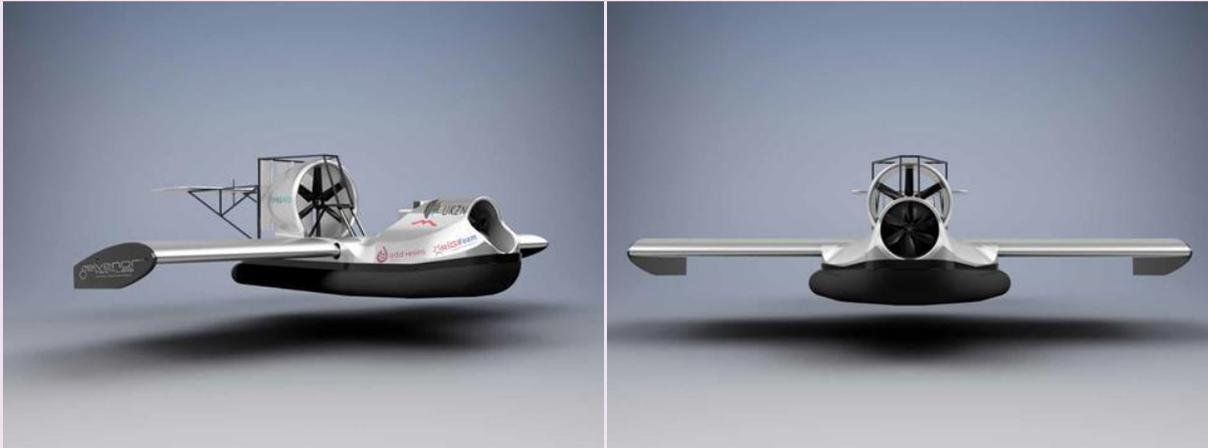
2032 No. Joints pre-fabricated at Fibre-Wound prior to delivery.

2600 No. Site joints.

Comment/Design

All equipment manufactured in accordance with BS 7159 and third party monitored prior to delivery on site.

The “Typhoon” – UKZN’s Off-road Flying Vehicle



A group of students from the University of KwaZulu-Natal (UKZN) were tasked with designing and building a multipurpose off-road vehicle for their final year design project, thus the Typhoon was born. The *Typhoon* is one of UKZN’s high profile flag ship projects of 2016.

The *Typhoon* essentially is a wing-i-ground effect hovercraft; therefore it is capable of conducting amphibious operations as well as fly at low altitudes. The craft itself is powered by 2 engines, a smaller 10hp engine to generate lift and a larger 50hp aviation engine to generate thrust. The wingspan of the craft is a mere 5.8m, these are detachable for practical reasons such as transportation. As the craft needs to be able to fly, it is critical to reduce its weight. Therefore the body of the craft is constructed from polyurethane foam and composite laminate in a sandwich configuration. **Derakane™ 411-350** will be used as the composite matrix with fibreglass and carbon fibre as the composite reinforcement. The footprint of the crafts lift system is a 3.64m x 1.82m and boasts a calculated weight of 34.6kg. The overall empty weight of the craft is a mere 170kg (excluding fuel and pilot). When fully loaded the *Typhoon* has a thrust to weight ratio greater than that of a Boeing 747.

With such a low weight, the craft has to take-off speed of 64km/hr and will take approximately 20 seconds to reach take-off velocity (assuming a calm day with no headwind). As we realise this is a dangerous vehicle, the *Typhoon* will be controlled remotely at first and later, if the tests are successful, a manual test flight will be attempted with a test pilot.



TEAM TYPHOON : L-R : Nino Wunderlin; Kai Broughton; Dylan Williams; Duran Martin

Farrel Reeve Joins add resins Team

add resins is delighted to welcome **Farrel Reeve** on board, starting September 2016.

Farrel brings a wealth of experience and energy to our manufacturing division and will be our Manufacturing and QC Manager, based in Sebenza, Gauteng.



The timing could not be better as we upgrade to the new updated **ISO9001:2015** Quality Management System, which we will implement through the world renowned **TUV Rheinland SA** organisation.

Farrel started his career in the printing inks business and has been involved with colour pigments and manufacturing for more than 40 years.

Part of his career was spent with Harveys Composites and Scott Bader, as well as many years in his own business and he has an intimate knowledge of the SA Composites market and its needs, as well as a good working relationship with many customers and fabricators.

We look forward to tapping into his mountain of knowledge and the mentoring and training of our younger staff.

Product News



add resins are excited to announce the launch of their own brand of Chopped Strand Matt, available country-wide and in all regular weights and packaged in new eye-catching **add resins** packaging.

Contact your responsible Sales person for more details.

add resins continues *adding value* for their customers and announces their new Product Catalogue is available in both electronic and hard copy versions. Hard copies will be delivered to you by your responsible Sales person but in the interim, you are invited to visit the website and click on the button to download

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