

CASE HISTORY

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Composites Build Lasting Infrastructure

Market Segments: Infrastructure Pipes/Ducts Power/ Energy

Mining

Composite Applications: Utility Poles

Tanks

Vent Tubes Drainage Pipes and more

Resin: Vipel® Epoxy Vinyl Ester

Manufacturing Process: Filament Winding

A.C. Whalan Composites in Mount Thorley, Australia, is on the cutting edge of using composite materials for the world's infrastructure. A.C. Whalan's utility poles, which range in length from 9 to 12.5 meters, are one example of how composites are an ideal choice for infrastructure. A.C. Whalan's composite power poles are fire resistant and withstand exposure to corrosive factors including insects, animals, salt and high humidity. They have a life expectancy of 60 to 70 years, are lightweight and easy to install, are virtually maintenance-free and can withstand high winds.

At the heart of these composite poles is epoxy vinyl ester resin, providing resistance to caustic alkalis, hypochlorite bleaching chemicals, high temperatures, even termites. AOC is the trusted resin supplier and partner for A.C. Whalan. "Since 2012, we have used AOC exclusively for development of existing and new products with great success," says Ben Whalan, managing director for A.C. Whalan Composites.

Building a strong partnership

The collaboration between A.C. Whalen Composites and AOC involves more than utility poles, as the two partners work together to create a variety of composite materials, including gas draining pipes and basic and custom vent tube fittings.





Tank sections manufactured under ASME-certified conditions were assembled at a riverside site.

Composites Build Lasting Infrastructure, continued

The relationship began when the Australian company landed a product development project for filament wound vent tubes for underground mining. AOC was one of five resin suppliers vying to work with A.C. Whalan by providing fire-resistant samples for production trials and independent tests. AOC won the business, and a long-term partnership with A.C. Whalan Composites, based on a combination of successful testing, product availability, technical resources, dependable communication and value.

Producing superior products

Composite materials must perform in extremely hazardous environmental conditions, and Whalan and his team work closely with AOC to ensure success. "Our products have to meet stringent statutory and regulatory requirements that must be independently verified," says Whalan. "Technical support is an essential part of our relationship with AOC and other suppliers."

Working with AOC has helped A.C. Whalan manufacture quality products and, as a result, to secure new contracts. "The benefit of using AOC resins in combination with other base materials has been superior products," says Whalan. "This has led to greatly improved end-user satisfaction, resulting in higher production rates with minimal non-conformance."

The combination has not only been beneficial to these two companies, but also to customers who enjoy quality materials that will last far into the future.

About A.C. Whalan Composites

A.C. Whalan Composites specializes in the design and manufacture of filament wound fiber reinforced plastics (FRP). They produce market-leading ventilation ducts, as well as specialty products, including utility poles, pressure pipes, tanks, fittings and wet exhaust tubes.

About AOC

AOC is a leading global supplier of resins, gel coats, colorants, additives and synergistic material systems for composites and cast polymers. AOC knows technology, lives quality and delivers service better than any other resin supplier.

For more information, e-mail corrosionresins@aoc-resins.com, phone (901) 854-2800 or go to AOC-RESINS. com.



This 9.5-meter power pole from A.C. Whalan Composites was designed for installations with limited access. The two-piece section can be assembled on site without the expense of heavy lift cranes.



Vipel is a registered trademark of AOC, LLC



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