

Case History

School Creates On-Site Water System

Market Segments:	Infrastructure Potable Water Pipes & Tanks Water/Wastewater
Resin:	Vipel® F010-H2O
Composite Application:	Coating System
Manufacturing Process:	Hand Lay-up
Location:	Norway House, Manitoba



These tanks were lined with AOC's Vipel F010-H2O vinyl ester coating system, an NSF-certified resin that made this project possible for Structural Composites.

When the Jack River School in Norway House, Manitoba, found itself with a growing student population and an on-site waste water treatment structure dating back to the 1970's, they knew it was time to make a change.

The school's district agreed and proposed a complete new system. One part of the new system was three custom water tanks to be used for potable water.

The Certification Challenge

Since the tanks would contain potable water, they needed to be NSF-certified. To get NSF certification on their own, Structural Composites would have had to build a tank, send it off for approval – a process that would have required destroying the tank – and then build another tank after being approved. Overall, the NSF approval process can be extremely long and expensive and would be cost prohibitive for this project.

Fortunately, AOC had the perfect resin that was already NSF-certified and Structural Composites could eliminate the time and expense for approval.



The Resin

AOC's cobalt-free resin, Vipel® F010-H2O-00 vinyl ester, earned certification from NSF International to be used in the manufacture of products for potable water applications. "For our customers manufacturing products for potable water, they can use this resin with confidence, knowing that it is safe," said Mike Diehl, AOC Business Manager. "Also, when fabricators follow the process instructions accurately, they don't need to perform additional testing to manufacture an NSF/ANSI 61-compliant coating. We did it already, so our customers who use the material don't have to."

The Tanks

Building large, custom tanks is business as usual for Structural Composites. For the Jack River School project, Structural Composites manufactured three separate tanks, using the hand lay-up process. Vipel F010-H2O, after being formulated and processed according to exact specifications, was used as a coating system inside each tank.

The Quality And Support

Structural Composites sales manager, Brian Zadro, gives two reasons for choosing AOC to partner with them on this journey. The first is the high-grade, safety-certified resin that AOC offers for production of potable water systems. "The resin performed exactly as expected. It was easy to work with, wetted out nicely and cured evenly," said Zadro.

The second reason, according to Zadro, is AOC sales representative Steve Maybee. "We really wanted to take on this project but didn't know if we could do it. When Steve offered us a resin that was already NSF-certified, we had our solution and could take the job. Steve continued to work with us every step of the way."

Zadro also received excellent customer support regarding the AOC product with which he was working. He went on to say, "Since this was a potable water tank, the requirements were strict, and everything had to be done right, especially in regard to disinfecting the interior of the tank prior to usage. AOC's corrosion consultant, Bruce Curry was always available to quickly answer

questions and provide detailed instructions, including updates to existing methods, for how to properly disinfect the water storage tanks."

The Final Product

The project took two months to complete, and the Jack River School is now enjoying fresh, potable water from a cutting-edge treatment system that will last for decades to come.

About Structural Composite Technologies, Ltd.

Structural Composite Technologies, Ltd. (SCTL), located in Winnipeg, Manitoba, is one of the longest-standing, privately owned fiberglass fabricators in North America. Since 1961, they have been designing, engineering and manufacturing custom, fabricated fiberglass reinforced plastic (FRP) equipment for mining, milling, smelting, refining, processing and manufacturing companies both at home and abroad.

About AOC

AOC is a leading global supplier of resins, gel coats, colorants, additives and synergistic material systems for composites and cast polymers. For more information on AOC technology, quality and service, e-mail americas@aocresins.com, phone (866) 319-8827, or go to AOCRESINS.com.