



INNOVATIONS FOR LIVING®

CASE STUDY

American Fiberglass Builds Tough Tanks for Tough Chemicals

FRP tanks for sodium hypochlorite made with Advantex® E-CR glass reinforcements have lasted 11 years and are still going strong

Fabrication Process

- Filament winding

Reinforcements

- Advantex® E-CR glass fiber reinforcements in both the corrosion barrier and structural portion of the tank

Resin

- Epoxy vinyl ester

Markets

- Industrial
- Water Treatment Facilities



Sodium hypochlorite is a clear, greenish-yellow solution commonly used in municipal water treatment facilities to disinfect drinking water. The chemical is beneficial to public health when used to purify water, but it is extremely hard on storage tanks.

J.B. Donaldson, founder and owner of American Fiberglass Inc. in Phoenix, Ariz., said he has seen competitors' fiberglass-reinforced polymer (FRP) sodium hypochlorite tanks fail in as few as 12 months. That makes it all the more impressive that FRP tanks made for similar use by his company have lasted as long as 11 years and are still going strong.

What is the difference? "We use the best materials we can get, and we take the time to make our tanks properly, not quickly," said Donaldson.

His list of "best materials" includes corrosion-resistant Owens Corning Advantex® E-CR glass reinforcements. "That's what we want to use," he added. "Our guys prefer it."

When Donaldson talks about quality materials and products, he speaks from years of experience. American Fiberglass has been in continuous operation in Phoenix since 1969, and at its present location since 1974. The company manufactures fiberglass industrial tanks, architectural panels and a wide range of custom fiberglass products. The company's chemical tanks have earned a reputation for long life under harsh conditions.



OCV Reinforcements



OCV Technical Fabrics



OCV Non-Woven Technologies

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“I get calls every week about competitive tanks failing,” said Donaldson. “Because new treatment facilities are typically built by the lowest bidder, they often include a cheap tank that fails in a year or two. We have tanks still in service holding all manner of harsh chemicals that were made 35 years ago.”

Donaldson said composite fabricators in the corrosion-resistance business have no business buying anything but the best materials.

“There is a responsibility that comes with helping customers store harsh and potentially dangerous chemicals,” said Donaldson. “It is foolish to risk performance and save 5 percent on materials cost when the more expensive material may be 20 percent stronger and allow you to use less of it.

“Cheap is not a good strategy in composite fabrication,” said Donaldson. “My philosophy is ‘build it well, deliver value and don’t be surprised when the customer comes back to buy another tank.’”



For more about American Fiberglass, visit their main website for links to sites showing their range of products: www.americanfiberglassusa.com.

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