



INTERPLASTIC

CASE

history

## Top Notch

We

“We build the best pool that money and technology can deliver.” That’s the philosophy at Royal Fiberglass Pools, Inc, and Tony Hebert has no plans to change it. Listening to Tony Hebert talk, you can’t help but be impressed by his tenacity, his relentless search for the best products and processes. But when you’re already at the top of your industry, where do you go next? You believe there’s still a better pool to be made and you’ll be the one to make it.

Clifford Hebert founded Royal Fiberglass Pools after years of installing gunnite, vinyl liner and fiberglass pools made by other manufacturers. “No one else was installing fiberglass pools in the region,” explains Hebert. “But my daddy was convinced that fiberglass pools were superior.” Tony says his father introduced vinyl ester resins into swimming pool manufacturing and always used Interplastic’s Thermoset Resins Division’s CoREZYN® vinyl ester resins as the barrier coat. They still do.

Today, Hebert also uses a CoREZYN isophthalic resin in his laminates and a gel coat on the laminate surface. Fiberglass is 17 times stronger than concrete, non-porous, easy to maintain and easy on feet and swimwear. Hebert’s pools are built to withstand the movement of the soils in the



coastal states, and the freeze and thaw of the northern states without losing their shape.

### Proving the Products

One of the ways Hebert ensures every one of their pools is top notch is by continually testing the products he uses to manufacture them. The Interplastic Thermoset Resins Division’s development laboratory regularly runs elevated temperature tests (boil tests) on laminate coupons Herbert submits. “We are trying to make sure there is always good resin consistency batch-to-batch and assure the resin’s physical characteristics remain accurate. We are also trying different fiberglass with the resin and we build different laminate thicknesses to see what might bring us a better combination.” Hebert says some of the boil tests are being run to

400 hours because he wants to build laminates to pass this test without failure. Industry standards are 100 and 200 hours. (See sidebar.) “I’m in the process of changing our marketing strategy and our warranty because of the test results.” Royal Fiberglass already has a 25-year, transferable, non-prorated warranty.

### Ingenuity Pays Off

When Hebert isn’t thinking about his products, he’s thinking about ways to improve his manufacturing operations. Keeping productivity high, and maintenance and waste low, motivated Hebert to design and patent a resin tank system.

“It’s the result of me trying to build a better pool with less maintenance and less stress on the facility. It has done much better than I ever imagined.”



# business

Hebert was in his early 20's when he designed the system and everyone, including his father, said it wouldn't work. Naturally, the younger Hebert wouldn't take "no" for an answer. "As our production increased, our maintenance on pumps, equipment rebuilds, and waste from cleaning conventional tanks increased too. We had trouble with getting good, consistent performance from our materials."

Hebert's circulating system features a floating head that sits atop the resin. The floating head lowers as the resin is used and maintains a minimum of air space volume above the resin. Reducing this air space prevents the styrene monomer from condensing and gelling at the top of the tank.

As the resin is used, some of it naturally clings to the tank (especially thixotropic resins) and gels slightly. With conventional tanks, the partially gelled particles are reintroduced to the new resin when the tank is refilled.

Because Hebert's floating head lowers as the tank is emptied, it also cleans the tank wall, scraping away any resin clinging to it. "I haven't had to clean the tank yet – it's six years old. This approach to resin management appears to lengthen the resin's life and eliminates all resin waste associated with bulk storage. The resin's physical properties remain consistent from beginning to end of each tanker, which is a key component to building better products, says Hebert. He estimates they've eliminated 70% of their plant equipment maintenance with these tank systems. "I have sold 24 tanks through resin sales people but I have never sold one myself."

Our business has been growing for 21 years by word of mouth...no sales force. A good product sells itself and we back it with service."

Like many marine, pool and spa manufacturers, Hebert has boil tests run on laminate coupons. There has been ongoing dissension among these manufacturers as to whether boil test results are a good method to determine whether a resin system is well suited to their particular application.

Interplastic Corporation's Thermoset Resins Division research and development laboratory has concluded and published their findings on a 15-year-long immersion study. Gel-coated panels and castings were tested at ambient temperatures beginning in 1986 and completed in 2002. The tests examined the effects of long-term ambient temperature exposure to short-term elevated temperature exposure on these panels and castings.

### Some of the study's highlights:

Using vinyl ester resin in the laminate gave excellent resistance to blistering. In fact, the panels made with vinyl ester (solid composite or skin coat) had no signs of blistering after 15 years at ambient temperature, at 300 days at 150°F (65°C) and similar results for the 200°F (93°C) testing.

Using a vinyl ester skin coat gave significant improvement in blister resistance as opposed to those panels with no vinyl ester skin coat. A vinyl ester skin coat between the gel coat and the laminate is hydrolytically stable enough to form a barrier that would not allow blisters to form.

Interplastic concluded that elevated temperatures (boil tests) are good methods to screen and to make decisions about the ultimate performance of gel-coated thermoset resin composites.

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INTERPLASTIC CORPORATION  
Thermoset Resins Division

1225 Willow Lake Blvd  
St. Paul MN 55110-5145  
Ph 651.481.6860 • Fx 651.481.9836  
[www.interplastic.com](http://www.interplastic.com)