



A New Frontier for Composite Applications

Designed for spray-up processes in a variety of applications including swimming pools, spas, marine, and concrete corrosion protection, OptiSpray™ Solutions provide optimum wetting for good surface finish and mechanical strength in the finished product.



Courtesy of GRC Fiberglass Coatings

Figure 1 Applicators applying OptiSpray™ H roving to the interior of a swimming pool

Although this industry has traditionally used cement-based products to build and renovate its pools, companies including GRC Fiberglass Coatings are recognizing that using FRP (fiberglass-reinforced polymers) to finish or restore swimming pools outlasts and outperforms traditional materials. These materials include paint, PVC liners, and pool plasters. When using FRP, Owens Corning OptiSpray™ H roving grade offers the benefit of great lay down on large, flat, pool substrates with a consistent surface finish.

According to Peter Gibson, Technical Director with GRC Fiberglass Coatings, his company began using Owens Corning OptiSpray™ H roving shortly after its release in September 2012. "We were immediately impressed with the speed of the glass wet out and were able to reduce our resin consumption by 3% to 5% compared to the gun roving we used previously," said Gibson. "Going forward, we will be using OptiSpray™ H roving exclusively for our applications," he asserted.

"The clean, smooth delivery of the roving to the gun with no blocking and no balling up in the chopper allows us to complete 1,000 sq. ft. in only two to three hours. This means pools experience very little down time," stated Gibson.

According to Sanghamitra Sircar, Owens Corning Global Product Manager – Multi End Rovings, this family of products comprising OptiSpray™, OptiSpray™ H, and OptiSpray™ F rovings are made with Owens Corning's patented Advantex® glass fiber. This patented glass fiber combines the electrical and mechanical properties of traditional E-glass with the corrosion resistance of EC-R glass.

One industry discovering the benefits of OptiSpray™ roving is the swimming pool industry. Although this industry has traditionally used cement-based



Courtesy of GRC Fiberglass Coatings

Figure 2 Resurfaced concrete pool with FRP finish

CASE STUDY

FRP incorporating OptiSpray Solutions provides a long-lasting solution to surface problems and eliminates the need for acid washing, painting, and replastering. These fiberglass linings are not subject to degradation like conventional materials including vinyl liners. Fiberglass can be applied to steel, aluminum, painted surfaces, and concrete. And, using fiberglass eliminates cracks and leaks, algae and staining, rough surfaces, discoloration, high chemical usage, rebar stains, and plaster problems.

According to Gibson, the use of FRP is modernizing swimming pool renovation and is gaining a name in the field for its durability, versatility, and long service life. "It can be used virtually anywhere that water containment is required. Fiberglass is inert, waterproof, and corrosion resistant. Furthermore, its nonporous surface inhibits algae penetration and minimizes staining. And, it is relatively immune to the damaging effects of pool water," affirmed Gibson.

"Years of field experience demonstrate that fiberglass can dramatically reduce construction or renovation cost, limit maintenance, and extend the life of a swimming pool or aquatic facility. Fiberglass provides superior strength, far beyond that of conventional plaster, coatings, or vinyl liners," concluded Gibson.



Courtesy of GRC Fiberglass Coatings

Figure 3 Commercial pool finished with FRP lining incorporating OptiSpray™ H roving

Take Risk Out...Put **Advantex®** Glass In.

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