

Why Aqua Seal

When should you consider adding the Aqua Seal Feature to your baptistery?

If you are planning on leaving water in your baptistery for extended periods of time.

Why should your church spend additional money on the Piedmont Aqua Seal Feature?

In short, your baptistery is made up of Gel Coat (the colored coating you see when you look into the tank), Polyester Resin (the liquid that bonds the glass fibers together and cures to a hardened state), Glass (small lightweight fibers that mix with the resin and give the tank its strength), and some wood structural components that give the tank additional support. The Gel Coat, though it may be hard to believe, is not waterproof. When the Gel Coat is submersed in water for long periods of time it will actually start to take on water through small microscopic holes. Water is very good at this point due to the small size of the H₂O molecule. Once the water has penetrated the Gel Coat it then approaches the Polyester Resin and can start to absorb more quickly into the product through the glass fibers. At this time the water begins to combine with other water soluble materials in the resin. These water soluble materials include phthalic acids, glycol, cobolts, mekp and styrene which have not gone through full cure in the hardening process. Once this solution has formed it cannot pass back through the Gel Coat as quickly due now to its increased molecular size. As the water continues to penetrate the Gel Coat and mix with the solution it eventually builds up enough pressure to form a BLISTER.

What does the Aqua Seal Feature do to prevent the baptistery from BLISTERING?

Piedmont Fiberglass adds an additional step to the manufacturing process, called a Barrier Coat. This Barrier Coat is approximately an 18-20 Mil coating that is sprayed on after the Gel Coat has cured but prior to the Polyester Resin and Glass being applied. This particular Coat is Vinyvester based and ultimately prevents the water from penetrating into the glass laminate.