

### **OR-1000™**

# An inner-surface technology for four times the antioxidant power.



Poly Processing's exclusive OR-1000<sup>™</sup> system was specifically designed to address the aggressive oxidation effects of sodium hypochlorite, sulfuric acid and hydrochloric acid by adding an additional chemical barrier between XLPE and the chemical. OR-1000's engineered inner surface is made of medium-density polyethylene, specifically formulated to resist oxidation. Its outer surface is made of XLPE for superior strength. The 2 surfaces are molecularly bound together during the rotomolding process, creating a truly seamless bond between the XLPE and the inner surface.

### The advantages of OR-1000<sup>™</sup>:

- The result gives you 4 times the antioxidant strength of any polyethylene on the market today!
- All wetted surfaces are covered by OR-1000<sup>™</sup>, eliminating the opportunity for a chemical attack on the structural portion of the tank.
- OR-1000<sup>™</sup> can be used on any of our tanks, including SAFE-Tank<sup>®</sup> and IMFO<sup>®</sup> tank systems.

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## **ABOUT XLPE**

High-density crosslinked polyethylene, or XLPE, is a thermoset resin that is specifically designed for critical applications like chemical storage. During the XLPE manufacturing process, a catalyst (peroxide) is built into the resin, which creates a free radical. The free radical generates the crosslinking of the polymer chain, so the tank essentially becomes one giant molecule. The result is a resin that is specifically designed for critical chemical applications.

### XLPE versus Linear Polyethylene

- XLPE has 20 times the environmental stress crack resistance of HDPE.
- It has 10 times the molecular weight of HDPE.
- It has 5 times the impact and tensile strength of HDPE.

### XLPE versus Fiberglass-Reinforced Plastic (FRP)

- XLPE offers seamless construction for greater strength.
- With FRP, chemicals can wick into the fiber, compromising tank life.
- XLPE can have a lower cost of ownership, due to the low amount of required maintenance compared to FRP.
- FRP often requires special handling to avoid cracking.

#### **XLPE versus Carbon and Stainless Steel**

- XLPE has seamless one-piece construction, which eliminates the potential for chemical attack points and bad welds.
- Unlike carbon and stainless steel, XLPE has very broad chemical resistance capabilities without the need for high-cost coatings.
- XLPE does not require ongoing maintenance and inspection.
- XLPE is a cost-effective solution to high-priced alloys.



