

HYDROGEN PEROXIDE.

Accommodating a potentially explosive chemical.



Available in a variety of concentrations, hydrogen peroxide is used as an oxidizing agent in textile, paper and fur processing. It is also used as a plasticizer, a polymerization catalyst and a water and sewage treatment chemical. It poses a number of challenges when it comes to storage:

- Concentrated solutions are highly toxic and are strong irritants.
- Hydrogen peroxide is relatively unstable and decomposes into water and oxygen when exposed to the environment. The primary danger of this composition is fire and/or explosion.

For concentrations of hydrogen peroxide that are less than or equal to 50%, high-density crosslinked polyethylene is a smart option.



The Poly Processing HYDROGEN PEROXIDE SYSTEM.

If there is a chance that hydrogen peroxide has escaped from its storage system, evacuation is mandatory, since explosion could occur. Therefore, it's imperative that an environment be made as leak-free as possible. Poly Processing's crosslinked polyethylene helps ensure that, by providing a **high-strength storage option** for hydrogen peroxide. The SAFE-Tank® system offers **tank-within-a-tank protection** for secondary containment. And if secondary containment is already provided for the tank, Poly Processing recommends the IMFO® tank system to provide complete drainage without entering the vessel shell, **helping personnel avoid contact** with this strong irritant.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
≤50% Hydrogen Peroxide	XLPE	1.65	PVC/CPVC	Viton®	316SS

» See our website for complete Chemical Resistance Chart.

Tank Specifications & Technical Overview

IMFO® VERTICAL FLAT / SLOPED BOTTOM OF XLPE:

- 200-15,500 gallons
- 1.65 spg rating

NON-IMFO® ALTERNATIVES:

SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.65 spg rating for primary tank
- Spg ratings for secondary tanks ≥ 3,000 gallons may be equal to or 1 less spg than primary tank.
- All other tank sizes must equal primary tank spg rating.

Standard Vertical Flat Bottom XLPE:

- 30-15,500 gallons
- 1.65 spg rating

NOTE: Use only flanged connections with hydrogen peroxide. Threaded fittings should be avoided!

Alternative secondary containment: PPC secondary containment basin or other secondary containment suitable for hydrogen peroxide, of adequate size for use

Plumbing: Requires use of flexible connections with fittings on lower third of sidewall.

Venting: Please refer to the venting chart on www.polyprocessing.com/venting

Foundation: PolyBase or smooth concrete designed to accommodate IMFO®, SAFE-Tank® or vertical tank

Temperature: Product should not exceed 100°F at delivery or during storage to maintain ASTM D1998 design parameters.

Lid: A hinged, weighted manway to prevent over-pressurization due to rapid decomposition

Options: Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts, OR-1000™ and engineering stamp

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