



### **Optimize Fluid Diversion and Enhance Stimulations**

The field-proven PS-LT dissolvable ball sealer temporarily seals perforations that are accepting the most fluid.

### **Applications**

- Plug open perforations for cleaning scale and paraffin
- Improve stimulation by diverting fluid to lower-permeability zones
- Help manage fluid in hydraulic fracturing stages and refracs

#### **Features**

- Compatible with standard stimulation fluid additives
- Dissolves in freshwater, brine, and acid
- Differential pressure tested with fluid up to 4000 psi [27.6 Mpa] and 150 °F [66 °C]

#### **Benefits**

- Will not stick in perforations like rubber coated ball sealers
- Quickly dissolves in hours after stimulation or fracturing stages
- Completely biodegradable material

### **Properties**

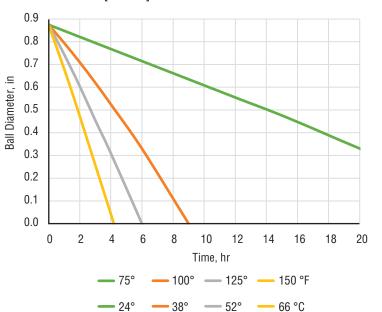
Temperature range	75 - 150 °F [24 - 66 °C]		
Appearance	Blue		
Specific gravity	1.20 +/- 0.05		
Solubility	Compatible with freshwater, brine, and acid; incompatible with nonpolar solvents, such as diesel, benzene, xylene, kerosene, toluene		
pH fluids	0–12		
Storage	Keep product away from moisture; do not expose to temperature higher than 130 $^{\circ}\text{F}$ [54 $^{\circ}\text{C}]$		
Size	0.50 in [13 mm]; 0.625 in [16 mm]; 0.875 in [22 mm]; 1.0 in [25 mm]; 1.25 in [32 mm]		

Please soak the PS-LT ball sealer in mineral oil, which prevents clumping, before inserting into the gun launcher.

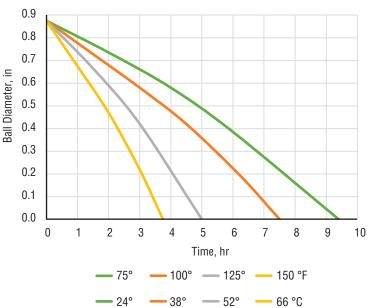


## **Dissolvability Rates vs. Time**

Dissolvability Curves in 2% Potassium Chloride (KCL) PS-LT 0.875 in [22 mm]



Dissolvability Curves in 15% Hydrochloric Acid (HCI) PS-LT 0.875 in [22 mm]



# Perforation Sealing Differential Pressure ( $\Delta P$ ) Sealing Time in Fluid vs. Temperature

Temp °F [°C]	ΔP Sealing Time* (Hours)				
	2% KCL		15% HCL		
	500 psi [3.45 Mpa]	1000 psi [6.9 Mpa]	500 psi [3.45 Mpa]	1000 psi [6.9 Mpa]	
75 [24]	17	15	5.0	4.4	
100 [38]	5.7	5.0	3.8	3.4	
125 [52]	3.1	2.8	2.4	2.1	
150 [66]	2.4	2.1	1.9	1.7	

<sup>\*</sup> Time based on 0.875 in [22 mm] ball diameter capable of sealing a perforation size of 0.40 in [10 mm]

For more information about our PS-LT low-temperature, dissolvable ball sealer that increases fluid efficiency, please call us: 844-277-7373 or email: csr@perfsealers.com.

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