PS-MT

Dissolvable Ball Sealer - Medium Temperature





Optimize Fluid Diversion and Enhance Stimulations

The field-proven PS-MT 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 200 °F [93 °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	100 - 200 °F [38 - 93 °C]		
Appearance	Green		
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-MT 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)

6

— 100° — 125° — 150° — 175° — 200 °F **−** 38° **−−** 52° **−−** 66° **−−** 79° **−−** 93°C

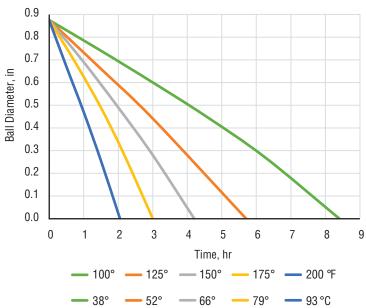
Time, hr



8

10





Perforation Sealing Differential Pressure (ΔP) Sealing Time in Fluid vs. Temperature

12

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]	
100 [38]	6.3	5.9	4.3	3.8	
125 [52]	4.2	3.8	2.8	2.5	
150 [66]	2.9	2.6	2.0	1.7	
175 [79]	2.0	1.8	1.5	1.3	
200 [93]	1.6	1.4	1.0	0.9	

^{*} 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-MT medium-temperature, dissolvable ball sealer that increases fluid efficiency, please call us: 844-277-7373 or email: csr@perfsealers.com.

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0.2

0.1

0.0

0

2