

PROPEL SSP®/PROPEL SSP® 350

PROPPANT TRANSPORT TECHNOLOGY

TECHNICAL FEATURES

- Compatible with water up to 350k PPM TDS water
- Suitable for anionic and cationic fluid systems
- Uniform proppant distribution in low viscosity fluid
- Maximize propped height
- Efficient proppant transport through fracture network
- Residue-free polymer break with conventional oxidizers
- Identical crush strength and conductivity of uncoated proppant
- Shear-stable polymer coating integrity during blending and transport
- Does not require the use of energized fluids

COMPARED WITH SLICKWATER

- Reduces chemical and water consumption
- Limits abrasion on pressure pumping equipment
- Improves retained permeability
- Limits fluid leakoff
- Able to use coarse mesh sizes

COMPARED WITH CONVENTIONAL GEL

- Simplifies fluid chemistry
- Remains in-zone
- Improves regain conductivity
- Non-damaging to the reservoir

PRODUCT PROPERTIES

	Propel SSP	Propel SSP 350
Water Compatibility	Fresh Water	Brine, Brackish, KCl, Seawater, Flowback Produced
Viscosity at 1 ppa ^a	5-7 cP	3-5 cP
Full Stack	3-6 ppa (360-720 kg/m ³)	4-6 ppa (480-720 kg/m ³)
Time to Full Hydration	< 30 seconds	< 2 minutes
Activation Time (FR, swell)	Instantaneous	
Mesh Size	16/30, 20/40, 30/50, 40/70, 100	
Substrate	Sand, Ceramic	
pH ^b	9.6	4.4
Effective Sg	1.3-1.6	1.5-1.6

a) Supernatant viscosity measured with Fann 35, 511 sec⁻¹, 300 RPM, R1B1, 75°F.

b) pH measured in standardized test water (ph 5.14, 120 ppm hardness, 165 ppm TDS, and 300 micro-Siemens conductivity).

Propel SSP/SSP 350 was added at 1 ppa concentration.

FIELD OPERATING RANGE

	Propel SSP	Propel SSP 350
Recommended TDS Limit for Full Stack (ppm)	< 1,000	< 350,000
Applicable Temperature Range	-50°F to 380°F (-46°C to 193°C)	
pH Tolerance	5.3 - 12.3	4.5 – 12.0

FIELD VERIFIED OPERATING CONDITIONS

Minimum Pump Rate	3 BPM (.5 m ³ /min)
Maximum Pump Rate	100 BPM (15.9 m ³ /min)
Max PPA	12 ppa (1,440 kg/m ³)
Completion Techniques	Plug and Perf Sliding Sleeve Coil Frac

*Refer to substrate's technical data sheet

EFFECTIVE SPECIFIC GRAVITY AND SIZE OF PROPPANT IN SLURRY
 FOR PROPPANT SUBSTRATE WITH 2.65 g/cc ABSOLUTE DENSITY

	Expansion %	Effective Specific Gravity	Effective Mean Particle Diameter (micron)		
			20/40	30/50	40/70
Raw Baseline	0	2.6	600	410	320
	50	2.1	685	468	365
	100	1.8	754	515	402
	150	1.6	812	555	433
	200	1.5	863	590	460
	250	1.5	908	621	485
	300	1.4	950	649	507
	400	1.3	1023	699	546



Propel SSP 350 in Fresh Water Propel SSP 350 in Brackish Water Propel SSP 350 in Produced Water Raw Sand in Slickwater

Proppant stacking achieved with Propel SSP/Propel SSP 350 in different water types as compared to proppant settling typical of a slickwater formulation

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Data listed has been generated by Fairmount Santrol and independent laboratories. Every real-world sampling is different, so your results may vary. Data is for direction purposes. Additional testing is suggested for specific conditions of source water and fluid chemistry, prior to pumping.

The information contained in this data sheet is for general application and is believed to be accurate at the time of printing. Fairmount Santrol makes no warranty, expressed or implied, concerning these products except that these products shall conform to Fairmount Santrol specifications.

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