P-SP300

TECHNICAL DATA SHEET

DATE: JANUARY 1, 2026

PETROCHEM – HIGH TEMPERATURE SPACER POWDER 300

PRODUCT DESCRIPTION

P-SP300 is a dry spacer system base powder designed for formulation of water-based spacer fluids in primary cementing operations under elevated temperature conditions. It provides controlled rheology development, strong low-shear-rate viscosity, and enhanced solids suspension to maintain stable spacer performance at temperatures up to 300°F (149°C). When properly formulated, P-SP300 supports effective fluid separation, improved displacement efficiency, and density stability in moderate- to high-temperature wells.

APPLICATIONS

- Water-based spacer system formulations for high-temperature cementing operations
- Pre-flush and spacer fluids for wellbore cleanup
- Fresh water, brine, and seawater spacer systems
- Spacer systems requiring high-temperature rheology stability and suspension performance
- Displacement systems for improved mud removal and cement compatibility

TECHNICAL DATA

- Promotes effective separation between drilling fluid and cement slurry
- Develops strong low-shear-rate viscosity for suspension and sag control at elevated temperatures
- Contributes to yield point development depending on concentration and system design
- Improves solids carrying capacity under low-flow conditions
- Maintains density uniformity during mixing, circulation, and placement
- Reduces interfacial contamination and channeling during displacement
- Compatible with standard weighting agents including barite and hematite
- Applicable to high-density spacer systems (laboratory validation required)

FUNCTION IN SPACER SYSTEMS

- Provides primary rheology control within high-temperature spacer formulations
- Supports suspension of weighting materials and drilled solids under static and circulating conditions
- Maintains fluid stability and minimizes settling during extended placement times
- Assists in maintaining hydraulic separation between drilling fluid and cement slurry under elevated temperature conditions
- Note: P-SP300 is a spacer system base component and is not a complete spacer fluid. A functional spacer system requires base fluid, surfactant package, and density control additives.

TYPICAL PROPERTIES

- Appearance: Tan Powder
- Specific Gravity: 2.23
- Temperature Range: Up to 300°F (149°C)

RECOMMENDED TREATMENT

- Typical concentration range: 0.5% – 3.0% BWOW (approximately 0.2% – 1.2% BWOC equivalent based on typical slurry designs), depending on required rheology and density
- Add P-SP300 to base fluid under moderate to high agitation to ensure uniform dispersion
- Allow sufficient shear to develop rheological structure prior to addition of weighting agents
- Add weighting materials (barite, hematite) to achieve target density
- Incorporate surfactant package based on drilling fluid type and compatibility requirements
- Final formulation and performance should be verified through laboratory testing under representative high-temperature well conditions

PACKAGING

- Packaged in 40 × 50 lb (22.7 kg) sacks per pallet
- Bulk or custom packaging options available upon request

SAFETY

- Refer to the Safety Data Sheet (SDS) prior to handling or use