Technical Data Sheet

SiberProp™ Proppants

Description

SiberProp™ proppants are a Stress Bond™ technology resin coated sand available in a 16/30 mesh size. Tan in color, the SiberProp resin system is applied to high quality frac sand. The unique properties of the SiberProp resin have redefined curable proppants. By using a specially formulated resin system, SiberProp proppants develop significant strength in the bonded pack at very low bottom-hole temperatures without the need for external consolidation aids.

Typical Applications

Fracture treatments:

- At closure stess up to 8,000 psi [55 MPa]
- At bottom-hole static temperatures from 130 - 200°F [54 - 93°C]
- When high strength in the bonded pack is necessary or desirable at very low temperatures

Technical Advantages and Benefits

- Low temperature bonding down to 130°F [54°C] bottom-hole static temperature without the use of a low temperature consolidation aid
- Optimized AcTivator™ consolidation aid loading recommendations are available based on well specifics to maximize performance and minimize additional cost to the operator
- Higher strength in bonded pack at lower temperatures than conventional curable resin coated proppants
- Consolidates with closure stress in the fracture
- Helps prevent proppant flowback

Typical Properties

Property	Value	Unit
Absolute Volume	0.392 [0.0470]	cm^3/g [gal/lb]
API Mesh Size	16/30	
Bulk Density	1.54 [12.9]	g/cm^3 [lb/gal]
Color	tan	
Compatibility	Fully compatible with most commonly used fracturing fluids, both water and oil-based systems. Testing with fluids prior to pumping is advised.	
Composition	resin coated frac sand	
Median Particle Diameter	0.9097	mm
Particle Size Distribution	meets or exceeds API RP 19C	
Physical State	solid granule	
Pipe Fill Factor	0.649 [0.0775]	cm^3/g [gal/lb]
Resin Type	thermosetting, curable	
Solubility in Water, Brine & HCl	nil	weight %
Solubility in HCl/HF acid, API RP 19C	< / = 3	weight %
Solubility In Oil	nil	weight %
Specific gravity	2.55	
Turbidity	< 250	NTU (FTU)

Technical Considerations

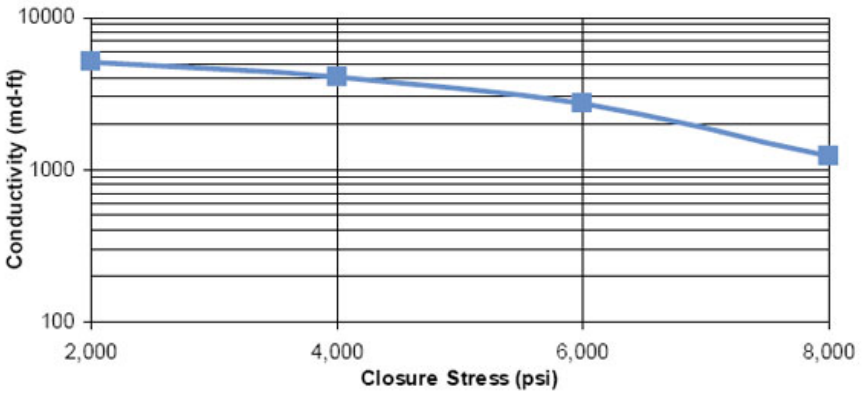
- Grain-to-grain contact must occur and closure stress must be applied during the cure period for proper bonding
- Consolidation of curable product at bottom-hole static temperatures below 130°F [54°C] is achieved by the use of our AcTivator low temperature consolidation aid

Long-Term Conductivity and Permeability

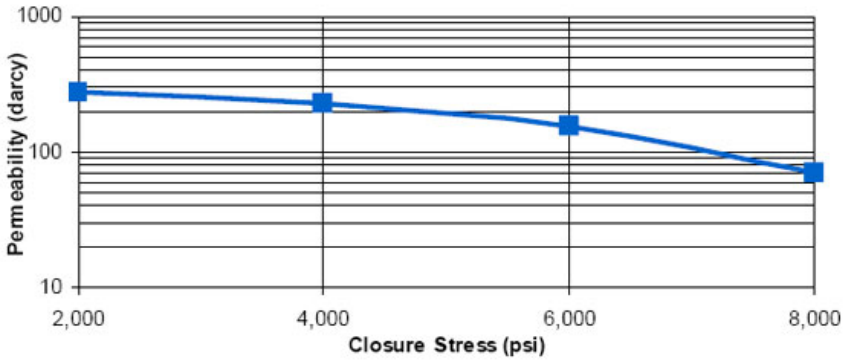
Stim-Lab, Inc. Consortium Long-Term Baseline Procedure

Proppant Concentration: 2 lb_m/ft^2 [9.8 kg/m^2], Temperature:150°F [66°C]

Closure Stress (psi)	2,000	4,000	6,000	8,000
Size	Conductivity (md-ft)			
16/30	5089	4125	2708	1226



Closure Stress (psi)	2,000	4,000	6,000	8,000
Size	Permeability (darcy)			
16/30	274	226	152	71



Contact Information

Hexion
Oilfield Technology Group
15366 Park Row
Houston, Texas 77084 USA
+1 281 646 2800
www.hexion.com/oilfield

Customer Service
+1 800 626 2116
otg.customerservice@hexion.com

Technical Inquiries
otg.customerservice@momentive.com