

BROWNWOOD CLAY HOLDINGS, LLC



2700 Barton Creek Blvd., Ste.230
 Austin, TX 78735
 (512) 371-6692
 (512) 727-5979 Fax

TEXLite™

- Light weight cost-effective ceramic proppant
- US Manufactured for a wide range of wells
- High flow capacity for enhanced production rates
- Bulk density and specific gravity similar to sand

Physical and Chemical Properties

Sieve Analysis [weight % retained]

U.S. Mesh	Microns	20/40	30/50	40/70
+12 mesh	+1700	-	-	-
-12+16 mesh	-1700+1180	-	-	-
-16+20 mesh	-1180+850	4	-	-
-20+30 mesh	-850+600	61	3	-
-30+40 mesh	-600+425	35	80	1
-40 mesh	-425	-	16	-
-40+60 mesh	-425+250	-	-	95
-50 mesh	-300	-	1	-
-60+70 mesh	-250+212	-	-	4
Median Particle Diameter [um]		642	478	341

API Crush Test

% by weight fines generated

@ 5,000 psi	0.5	0.2	0.1
@ 7,500 psi	2.1	1.4	0.3
@ 10,000 psi	4.9	3.7	1.4
@ 12,500 psi	-	5.4	3.4
@ 15,000 psi	-	-	6.7

Sizing Requirements: A minimum of 90% of the tested sample should fall between the designated sieve sizes. These specifications meet the recommended practices as detailed in ISO 13503-2.

Typical Additional Properties

Roundness	0.9	Chemistry [weight %]	
Sphericity	0.9	Al ₂ O ₃	48
Bulk Density [lb/ft ³]	92	SiO ₂	46
[g/cm ³]	1.48	TiO ₂	2
Apparent Specific Gravity	2.67	Fe ₂ O ₃	3
Absolute Volume [gal/lb]	0.051	Other	1
Solubility in 12/3 HCl/HF Acid [% weight loss]	5.2		



20/40



30/50



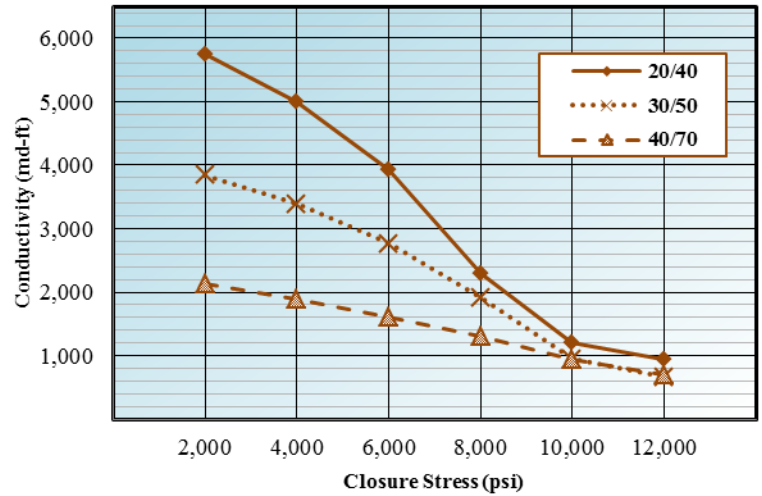
40/70

Long-Term Conductivity

Reference Conductivity (md-ft @ 250°F)

Closure Stress [psi]	2 lb/ft ² 20/40	2 lb/ft ² 30/50	2 lb/ft ² 40/70
2,000	5756	3845	2127
4,000	5001	3385	1894
6,000	3919	2763	1612
8,000	2294	1913	1311
10,000	1202	945	941
12,000	935	666	693

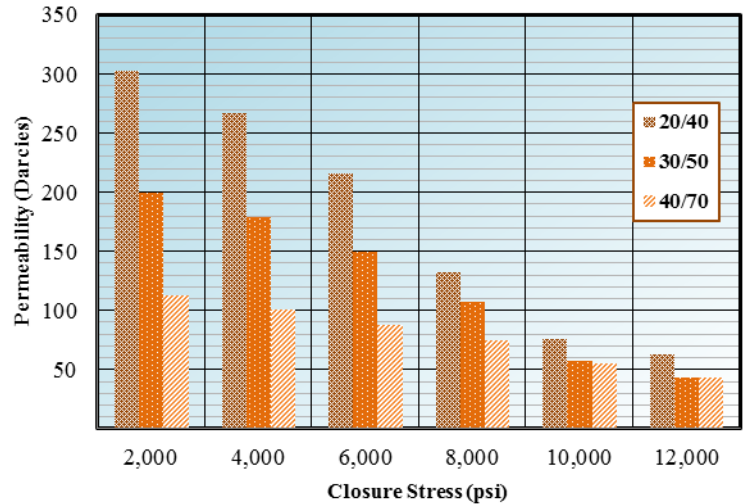
2 lb/ft², 250°F, with 2% KCl Between Ohio sandstone



Reference Permeability, (Darcies @ 250°F)

Closure Stress [psi]	2 lb/ft ² 20/40	2 lb/ft ² 30/50	2 lb/ft ² 40/70
2,000	302	199	112
4,000	266	179	101
6,000	216	149	88
8,000	132	107	74
10,000	76	57	55
12,000	62	43	43

2 lb/ft², 250°F, with 2% KCl Between Ohio sandstone



* Reference conductivity and permeability are measured with a single phase fluid under laminar flow conditions in accordance with ISO 13503-5. In an actual fracture, the effective conductivity will be much lower due to non-Darcy and multiphase flow effects.



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