



Longchuan Industry District, Yangquan, 045200, P.R. China

CQIsp™ – Technical Specifications

- Manufactured and Delivered by; Changqing Proppant Corporation
- High quality proppant with high flow rates in both initial and post production stages for greater production and less drop-off.
- Field proven, intermediate-strength proppant, used in fields such as the Bakken, and Cooper basin
- Ideal for closure stresses from 8,000 to 12,000 psi
- Available in various sizes: 12/18, 16/30, 20/40, 30/50 and 40/70

Physical Properties	CQIsp™				
	US Mesh	Weight % Retained			
	12/18	16/30	20/40	30/50	40/70
12	0.6				
14	68.8				
16	27.4	0.2			
18	3.1	46.1			
20	0	26.8	0.3		
25		25.9	51.2	0	
30		1.0	45.5	5.8	
35			2.5	55.1	0
40			0.2	36.8	0.9
45			0.1	2.1	34.1
50			0.1	0.1	44.0
60				0.1	20.7
70					0.2
100					0.1
% in size	99.3	99.8	98.4	94.2	99.0
Median Diameter, mm	1.467	0.961	0.706	0.524	0.339
Crush fines (% by weight generated):					
@ 7,500 psi	9.4	4.2	2.3	1.1	0.4
@10,000 psi	15.5	9.2	3.4	1.6	0.9
@12,500psi	19.1	11.8	5.9	3.5	1.5
@15,000psi	--	--	--	--	--
Sphericity	0.9	0.9	0.9	0.9	0.9
Roundness	0.9	0.9	0.9	0.9	0.8
Acid Solubility, %	5.8	6.5	5.8	5.6	6.9
Bulk Density, g/cc	1.84	1.76	1.80	1.79	1.74
Bulk Density, lb/cuft	115	110	113	112	109
Specific Gravity, g/cc	3.19	3.14	3.27	3.25	3.34
Absolute Volume, gal/lb	0.038	0.038	0.037	0.037	0.036
Turbidity, FTU	18	52	90	15	54



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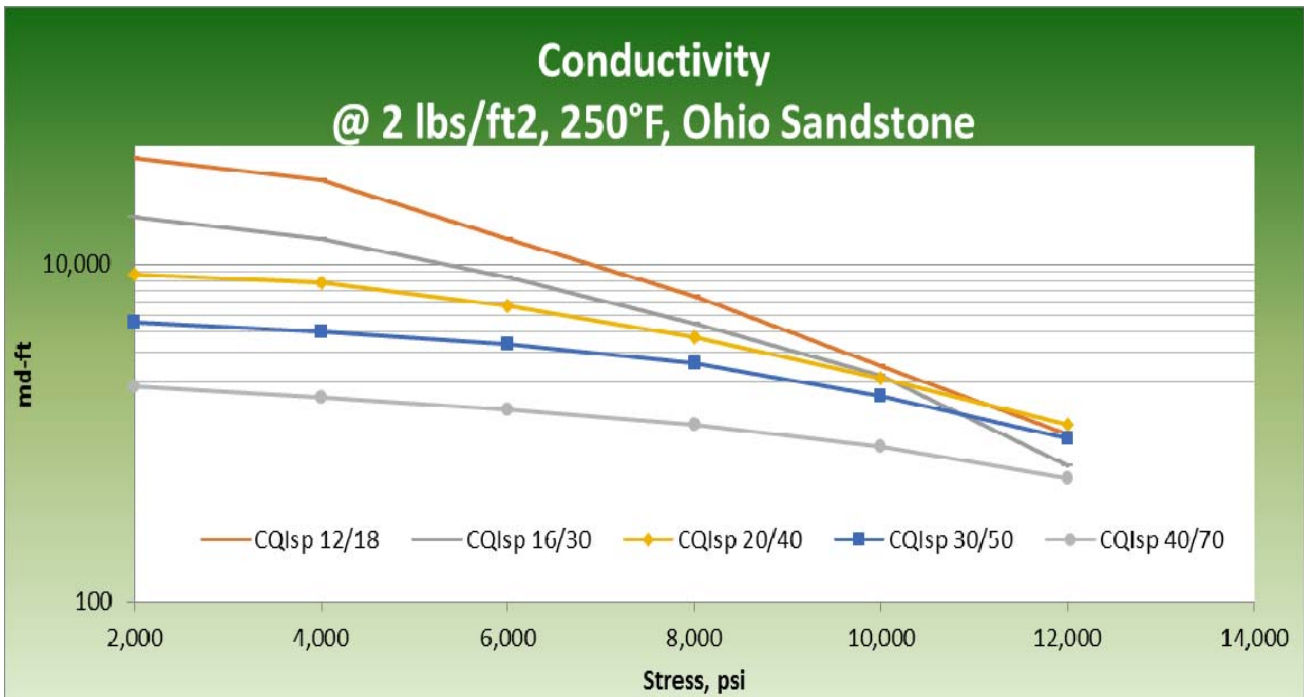
Long-term Conductivity (2 lb/ft², 250°F, with 2% KCl, Between Ohio sandstone)

Conductivity (md-ft):

Closure Stress (psi)	12/18	16/30	20/40	30/50	40/70
2,000	42,802	19,208	8,716	4,556	1,900
4,000	31,796	14,291	7,746	4,019	1,616
6,000	14,288	8,333	5,723	3,345	1,387
8,000	6,428	4,447	3,706	2,617	1,127
10,000	2,481	2,200	2,124	1,662	837
12,000	991	643	1,116	936	545
14,000					

Permeability (Darcies):

Closure Stress (psi)	12/18	16/30	20/40	30/50	40/70
2,000	2,514	1,130	543	286	120
4,000	1,954	871	499	257	104
6,000	931	531	379	218	92
8,000	443	297	253	174	76
10,000	179	155	150	115	58
12,000	74	47	81	68	39
14,000					



All the above data are typical values obtained according to ISO 13503-2/API RP 19C, and ISO 13503-5. Actual conductivity may vary substantially due to gel damage, fines migration, and other factors.

For more information, please contact us at contact@cqprop.com.