
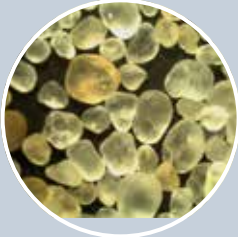


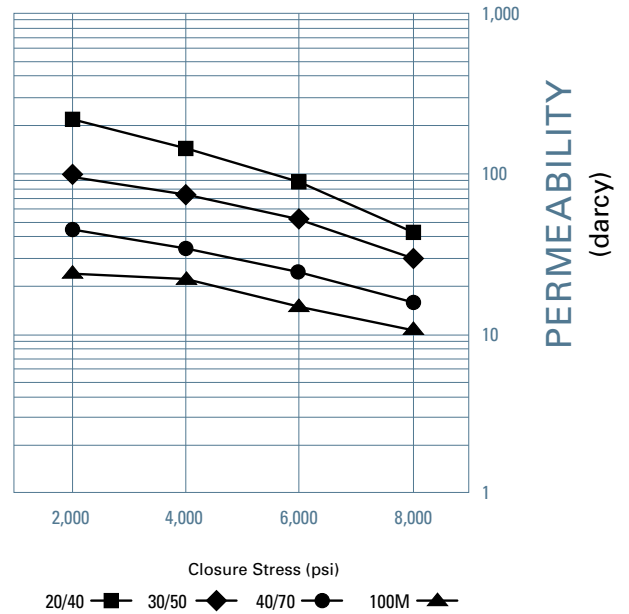
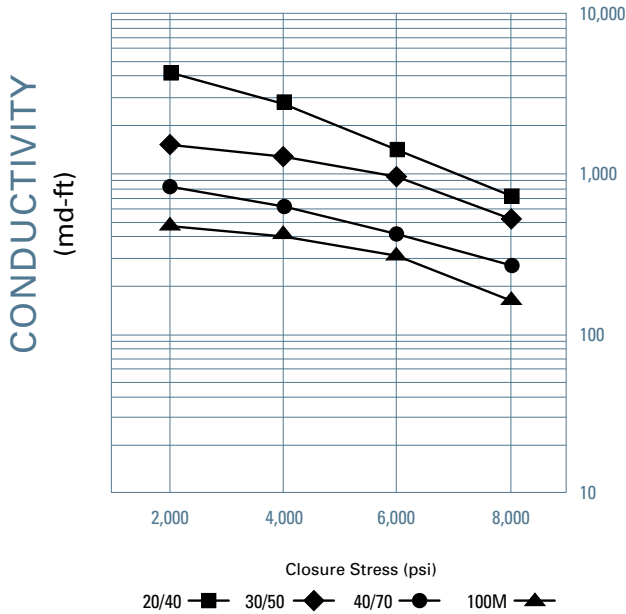


The Wyeville, WI operation is a unit-train capable facility with an annual capacity in excess of 1.8 million tons of premium Northern White frac sand. Sourced from a Pleistocene alluvial flow deposit of reworked, quartz-rich, Cambrian period sandstones, Wyeville natural proppants are geologically and texturally mature exhibiting exceptional purity, shape, strength and conductivity.

WYEVILLE FACILITY
 Established 2011
 1.85 MM TPY Capacity
 19,000 Ton Silo Storage
 Union Pacific Railroad Origin

WYEVILLE PRIMARY FRAC GRADES

Typical Properties	20/40 Frac		30/50 Frac		40/70 Frac		100 Mesh	
								
13503-2/API RP 19C	-20+40		-30+50		-40+70		-50+140	
Sect. 6 "Sieve Analysis"	16	0.0	20	0.0	30	0.0	50	0.5
	20	2.7	30	2.6	40	0.8	70	9.2
	25	17.6	35	16.4	45	11.2	80	51.4
	30	41.8	40	29.6	50	33.0	100	30.6
	35	29.9	45	38.0	60	34.0	120	6.6
	40	7.7	50	10.6	70	16.3	140	1.4
	50	0.3	70	2.7	100	4.6	200	0.3
	Pan	0.0	Pan	0.1	Pan	0.1	Pan	0.0
Percent in Size (API/ISO Standard)	> 90%		> 90%		> 90%		> 90%	
Mean Diameter (d _{av})	0.638 mm		0.434 mm		0.295 mm		0.186 mm	
Median Diameter (d ₅₀)	0.627 mm		0.424 mm		0.288 mm		0.183 mm	
Sect. 7 "Shape"								
Roundness	0.8		0.7		0.7		0.7	
Sphericity	0.8		0.7		0.7		0.7	
Sect. 8 "Acid Solubility"								
12:3 HCl/HF @ 150° F	1.10%		1.05%		1.28%		1.10%	
Sect. 9 "Turbidity"								
NTU	< 50		< 50		< 50		< 70	
Sect. 10 "Proppant Density"								
Bulk (g/cm ³)	1.57		1.55		1.53		1.52	
Bulk (lb/ft ³)	98.06		96.65		95.55		94.8	
Apparent [Oil] (g/cm ³)	2.63		2.63		2.64		2.64	
Settling rate (ft/min)	70.42		30.96		14.02		8	
Sect. 11 "Crush Resistance"								
K Value	7K		10K		11K		14K	
	9.47% @ 7,000		9.38% @ 9,000		9.20% @ 10,000		9.00% @ 14,000	
	12.00% @ 8,000		10.55% @ 10,000		11.13% @ 11,000		10.90% @ 15,000	



LONG-TERM CONDUCTIVITY & PERMEABILITY

2% KCL Between Ohio Sandstone at 150° F for 50 Hrs Per Stress

Stress (psi)	Conductivity (md-ft)			
	20/40	30/50	40/70	100 M
2,000	4,173	1,658	823	499
4,000	2,876	1,409	611	429
6,000	1,509	949	432	312
8,000	742	516	290	187

Stress (psi)	Permeability (darcy)			
	20/40	30/50	40/70	100 M
2,000	233	93	46	26
4,000	166	81	35	23
6,000	90	56	25	17
8,000	46	31	18	11

Disclosure: Material physical and performance properties are measured using recognized industry procedures and facilities. Average values may apply. Hi-Crush Partners LP and its affiliates make no warranty for their products, express or implied. We recommend you confirm all properties and suitability for use. All products are sold to Hi-Crush Partners LP and its affiliates applicable standard terms and conditions of sale.



Sand Danger: This product has been classified following the Globally Harmonized System (GHS) of Classifying and Labeling Chemicals Criteria as a Category 1A Carcinogen, Category 1 Specific Target Organ Toxicity (following repeated exposures), and Category 2B Eye Irritant. For Industrial Use Only. Avoid creating dust when handling, using or storing product. Do not breathe dust. Prolonged exposure to dust may cause delayed lung injury (silicosis). Read Material Safety Data Sheet before using and follow OSHA or other applicable health and safety standards for crystalline silica/quartz.



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