

A photograph of a sand processing facility. In the foreground, there are several large, conical piles of sand. In the background, there is a complex of industrial structures, including a tall tower and a conveyor system. The scene is set against a clear blue sky. The entire image is reflected in a dark blue, wavy surface at the bottom, creating a symmetrical effect.

**PREFERRED SANDS**  
**PRODUCT GUIDE**

## Preferred Northern White Sands

TESTING DATA REFERENCES: STIMLAB: 11103-2040-NW, 11103-3050-NW, 11103-4070-NW, 11223, 9686; PROPTESTER: 101-15-04-46-18-A, 101-15-04-46-18-B, 101-15-04-46-18-C, 101-15-10-65-09

PROPERTIES	UNITS/METHOD	16/30		20/40		30/50		40/70		50/140	
		SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED
Typical Sieve Analysis		16	0.0	20	1.4	30	0.5	40	1.9	50	2.7
		18	98.5	25	97.2	35	98.1	45	98.0	80	97.2
		20		30		40		50		100	
		25		35		45		60		120	
		30	40	50	70	140					
		40	1.5	50	1.4	60	1.3	100	0.0	200	0.0
	Pan	<1	Pan	<1	Pan	<1	Pan	<1	Pan	<1	
Sphericity	Krumbein	0.9		0.8		0.7		0.7		0.8	
Roundness	Krumbein	0.9		0.8		0.7		0.7		0.7	
Turbidity	NTU	35		31		223		30		36	
Mean Particle Diameter	mm	0.803		0.619		0.439		0.328		0.221	
Bulk Density	g/cc	1.57		1.54		1.55		1.51		1.50	
Bulk Density	lb/ft³	97.70		96.32		96.70		93.91		93.50	
Specific gravity	g/cc	2.63		2.59		2.64		2.64		2.64	
Crush		5K		7K		8K		11K		13K	
Closure Stress (PSI)	PSI	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)
	1000	10802	576	4714	261	2163	121	1246	68	—	—
	2000	8832	480	4252	238	1956	111	1092	60	—	—
	4000	4767	271	2961	169	1550	89	878	49	—	—
	6000	1615	98	1568	92	1053	62	502	29	—	—
	8000	622	40	838	51	646	39	241	15	—	—

## Preferred Sands of Genoa (Genoa, NE)

TESTING DATA REFERENCES: STIMLAB: 11301; PROPTESTER: 400-08-01-05-08-B, 400-10-03-19-06D, 400-10-04-15-02, 400-13-02-35-02-A, 101-13-11-35-06-A, 101-15-03-43-16-A, 101-15-03-43-16-B, 101-15-03-43-16-C, 101-15-10-65-04

PROPERTIES	UNITS/METHOD	16/30		20/40		30/50		40/70		50/140	
		SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED
Typical Sieve Analysis		16	0.5	20	0.4	30	2.8	40	1.8	50	0.6
		18	99.4	25	96.3	35	93.2	45	98.2	80	99.4
		20		30		40		50		100	
		25		35		45		60		120	
		30	40	50	70	140					
		40	0.1	50	3.3	70	4.0	100	0.0	200	0.0
	Pan	<1	Pan	<1	Pan	<1	Pan	<1	Pan	<1	
Sphericity	Krumbein	0.7		0.7		0.7		0.8		0.7	
Roundness	Krumbein	0.7		0.7		0.7		0.8		0.8	
Turbidity	NTU	9		8		39		45		10	
Mean Particle Diameter	mm	0.920		0.595		0.422		0.336		0.228	
Bulk Density	g/cc	1.48		1.51		1.52		1.51		1.50	
Bulk Density	lb/ft³	92.03		93.91		95.13		94.23		93.81	
Specific gravity	g/cc	2.50		2.51		2.62		2.61		2.50	
Crush		3K		5K		6K		8K		11K	
Closure Stress (PSI)	PSI	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)
	1000	8844	460	5869	280	3294	162	2057	101	806	41
	2000	4362	236	5205	253	2533	129	1878	101	643	33
	4000	1193	70	3020	153	1350	71	1120	65	317	17
	6000	363	22	903	49	552	29	405	25	107	6
	8000	170	11	250	14	154	8	165	11	30	2

## Preferred Sands of Arizona (Sanders, AZ)

TESTING DATA REFERENCES: STIMLAB: 7756, 9962, 11103; PROPTESTER: 101-15-09-59-02-A, 101-15-06-67-03, 101-15-06-76-04, 101-15-06-46-05, 101-15-10-59-13-A, 101-15-06-59-02-A, 101-15-10-59-13-B

PROPERTIES	UNITS/METHOD	12/20		16/30		20/40		30/50		40/70		50/140		
		SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	SIEVE NO.	% RETAINED	
Typical Sieve Analysis		12	0.0	16	1.5	20	2.7	30	5.1	40	1.6	50	3.5	
		14	99.1	18	97.8	25	97.0	35	94.9	45	98.4	80	96.5	
		16		20		30		40		50		100		
		18		25		35		45		60		120		
			20		30		40		50		70		140	
			30	0.6	40	0.6	50	0.3	70	0.0	100	0.0	200	0.0
			Pan	<1	Pan	<1	Pan	<1	Pan	<1	Pan	<1	Pan	<1
Sphericity	Krumbein	0.7		0.8		0.8		0.8		0.7		0.7		
Roundness	Krumbein	0.6		0.7		0.6		0.6		0.7		0.7		
Turbidity	NTU	16		21		22		18		37		69		
Mean Particle Diameter	mm	1.191		0.883		0.657		0.489		0.338		0.238		
Bulk Density	g/cc	1.50		1.52		1.51		1.49		1.47		1.45		
Bulk Density	lb/ft <sup>3</sup>	93.88		94.90		94.30		92.97		91.71		90.40		
Specific gravity	g/cc	2.59		2.61		2.61		2.63		2.61		2.60		
Crush		4K		5K		6K		8K		9K		11K		
Closure Stress (PSI)	PSI	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	Conductivity (md-ft)	Permeability (Darcy)	
	1000	22322	1120	12455	629	8036	406	2588	144	1539	80	—	—	
	2000	17893	922	10208	533	5617	294	2148	122	1321	71	—	—	
	4000	8537	464	4568	254	2522	141	1346	77	903	50	—	—	
	6000	3595	206	1890	112	1241	73	786	46	438	26	—	—	
	8000	1585	97	803	51	445	28	431	26	190	12	—	—	

**Preferred** owns one of the largest coarse sands deposits in North America—our massive daily output enables us to service 50+ stage frac jobs with less than a day’s production.

For more information, please call Customer Service at 855-372-2435 or 855-FRAC-HELP, or contact us at [sandsales@preferred.com](mailto:sandsales@preferred.com)

DUE TO SUBJECTIVITY IN TESTING PROCEDURES, VALUES MAY VARY.

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