

lists	Substance
Name	ASTM A252 Grade3
Pipe type	seamless and welded pipe piles
Tensile strength	≥66000psi[455mpa]
Yield strength	≥45000psi[310mpa]
Elongation in 2 in.[50.8 mm]	See Table 2
Chemical composition	P(phosphorous) ≤0.050 %
Pipe ends	plain ends and can be specified as a bevel
Pipe Cutting	flame-cut or machine-cut
Alternative materials	API 5L X52, X56, or X60
	ASTM A500 Grade C
	ASTM A572 Grade 50 or 60
	ASTM A36
	ASTM A53 Grade B
	EN 10219 S355J2H
	CSA G40.21 50W/350W
	JIS G3444 STK540
	GB/T 1591 Q345B
Use	Building foundations, bridge supports, marine structures and other applications requiring deep foundation support

TABLE 2 Calculated Minimum Elongation Values		
in	mm	Grade 3 min, %
0.312	7.9	20.00%
0.281	7.1	19.00%
0.25	6.4	18.00%
0.219	5.6	17.00%
0.188	4.8	16.00%
0.172	4.4	15.00%
0.156	4	15.00%
0.141	3.6	14.50%
0.125	3.2	14.00%
0.109	2.8	13.50%

[https://www.botopsteel pipe.com](https://www.botopsteelpipe.com)

Dimensional tolerances

List	sort	scope
Weight	Theoretical Weight	95%-125%
Diameter	Specified Outside Diameter	±1%
Thickness	specified nominal wallthickness	min 87.5%
Lengths	Single random lengths	16 to 25 ft [4.88 to 7.62 m]
	Double random lengths	over 25 ft [7.62 m] with a minimum average of 35 ft [10.67 m]
	Uniform lengths	length as specified with a permissible variation of ±1 in.
beveled	Pipe piles shall be furnished with plain ends: When the ends are designated as beveled	30°- 35°

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Outside Diameter		Nominal Wall Thickness		Weight per Unit Lengths	
IN	MM	IN	MM	IN	MM
6	152.4	0.134	3.40	8.40	12.50
6	152.4	0.141	3.58	8.83	13.10
6	152.4	0.156	3.96	9.75	14.50
6	152.4	0.164	4.17	10.23	15.20
6	152.4	0.172	4.37	10.72	16.00
8	203.2	0.141	3.58	11.85	17.60
8	203.2	0.172	4.37	14.39	21.40
8 ^{5/8}	219.1	0.109	2.77	9.92	14.80
8 ^{5/8}	219.1	0.141	3.58	12.79	19.00
8 ^{5/8}	219.1	0.172	4.37	15.54	23.10
8 ^{5/8}	219.1	0.188	4.78	16.96	25.30
8 ^{5/8}	219.1	0.203	5.16	18.28	27.20
8 ^{5/8}	219.1	0.219	5.56	19.68	29.30
8 ^{5/8}	219.1	0.250	6.35	22.38	33.30
8 ^{5/8}	219.1	0.277	7.04	24.72	36.80
8 ^{5/8}	219.1	0.312	7.92	27.73	41.20
8 ^{5/8}	219.1	0.322	8.18	28.58	42.50
8 ^{5/8}	219.1	0.344	8.74	30.45	45.30
8 ^{5/8}	219.1	0.375	9.53	33.07	49.30
8 ^{5/8}	219.1	0.438	11.13	38.33	57.10
8 ^{5/8}	219.1	0.500	12.70	43.43	64.60
10	254.0	0.109	2.77	11.53	17.20
10	254.0	0.120	3.05	12.67	18.90
10	254.0	0.134	3.40	14.13	21.00
10	254.0	0.141	3.58	14.86	22.10
10	254.0	0.150	3.81	15.79	23.50
10	254.0	0.164	4.17	17.24	25.70
10	254.0	0.172	4.37	18.07	26.90
10	254.0	0.179	4.55	18.79	28.00
10	254.0	0.188	4.78	19.72	29.40
10	254.0	0.203	5.16	21.26	31.70
10	254.0	0.219	5.56	22.90	34.10
10	254.0	0.230	5.84	24.02	35.70
10	254.0	0.250	6.35	26.06	38.80
10 ^{3/4}	273.1	0.109	2.77	12.40	18.50
10 ^{3/4}	273.1	0.120	3.05	13.64	20.30

Outside Diameter		Nominal Wall Thickness		Weight per Unit Lengths	
IN	MM	IN	MM	IN	MM
10 ^{3/4}	273.1	0.134	3.40	15.21	22.60
10 ^{3/4}	273.1	0.141	3.58	15.99	23.80
10 ^{3/4}	273.1	0.150	3.81	17.00	25.30
10 ^{3/4}	273.1	0.164	4.17	18.56	27.70
10 ^{3/4}	273.1	0.172	4.37	19.45	29.00
10 ^{3/4}	273.1	0.179	4.55	20.23	30.10
10 ^{3/4}	273.1	0.188	4.78	21.23	31.60
10 ^{3/4}	273.1	0.203	5.16	22.89	34.10
10 ^{3/4}	273.1	0.219	5.56	24.65	36.70
10 ^{3/4}	273.1	0.230	5.84	25.87	38.50
10 ^{3/4}	273.1	0.250	6.35	28.06	41.80
10 ^{3/4}	273.1	0.279	7.09	31.23	46.50
10 ^{3/4}	273.1	0.307	7.80	34.27	51.00
10 ^{3/4}	273.1	0.344	8.74	38.27	57.00
10 ^{3/4}	273.1	0.365	9.27	40.52	60.30
10 ^{3/4}	273.1	0.438	11.13	48.28	71.90
10 ^{3/4}	273.1	0.500	12.70	54.79	81.60
12	304.8	0.134	3.40	17.00	25.30
12	304.8	0.141	3.58	17.87	26.60
12	304.8	0.150	3.81	19.00	28.30
12	304.8	0.164	4.17	20.75	30.90
12	304.8	0.172	4.37	21.75	32.40
12	304.8	0.179	4.55	22.62	33.70
12	304.8	0.188	4.78	23.74	35.40
12	304.8	0.203	5.16	25.60	38.10
12	304.8	0.219	5.56	27.58	41.00
12	304.8	0.230	5.84	28.94	43.10
12	304.8	0.250	6.35	31.40	46.70
12	304.8	0.281	7.14	35.20	52.40
12	304.8	0.312	7.92	38.98	58.00
12 ^{3/4}	323.9	0.109	2.77	14.73	21.90
12 ^{3/4}	323.9	0.134	3.40	18.07	26.90
12 ^{3/4}	323.9	0.141	3.58	19.01	28.30
12 ^{3/4}	323.9	0.150	3.81	20.20	30.10
12 ^{3/4}	323.9	0.164	4.17	22.07	32.90

Outside Diameter		Nominal Wall Thickness		Weight per Unit Lengths	
IN	MM	IN	MM	IN	MM
12 ^{3/4}	323.9	0.172	4.37	23.13	34.40
12 ^{3/4}	323.9	0.179	4.55	24.05	35.80
12 ^{3/4}	323.9	0.188	4.78	25.25	37.60
12 ^{3/4}	323.9	0.203	5.16	27.23	40.60
12 ^{3/4}	323.9	0.219	5.56	29.34	43.70
12 ^{3/4}	323.9	0.230	5.84	30.78	45.80
12 ^{3/4}	323.9	0.250	6.35	33.41	49.70
12 ^{3/4}	323.9	0.281	7.14	37.46	55.80
12 ^{3/4}	323.9	0.312	7.93	41.48	61.80
12 ^{3/4}	323.9	0.330	8.38	43.81	65.20
12 ^{3/4}	323.9	0.344	8.74	45.62	67.90
12 ^{3/4}	323.9	0.375	9.53	49.61	73.90
12 ^{3/4}	323.9	0.438	11.13	57.65	85.80
12 ^{3/4}	323.9	0.500	12.70	65.48	97.50
14	355.6	0.134	3.40	19.86	29.50
14	355.6	0.141	3.58	20.89	31.10
14	355.6	0.150	3.81	22.21	33.10
14	355.6	0.164	4.17	24.26	36.10
14	355.6	0.172	4.37	25.43	37.90
14	355.6	0.179	4.55	26.45	39.40
14	355.6	0.188	4.78	27.76	41.40
14	355.6	0.203	5.16	29.94	44.60
14	355.6	0.219	5.56	32.26	48.00
14	355.6	0.230	5.84	33.86	50.40
14	355.6	0.250	6.35	36.75	54.70
14	355.6	0.281	7.14	41.21	61.40
14	355.6	0.312	7.93	45.65	68.00
14	355.6	0.344	8.87	50.22	74.80
14	355.6	0.375	9.53	54.62	81.30
14	355.6	0.438	11.13	63.50	94.60
14	355.6	0.469	11.91	67.84	100.90
14	355.6	0.500	12.70	72.16	107.50
16	406.4	0.134	3.40	22.73	33.80
16	406.4	0.141	3.58	23.90	35.60
16	406.4	0.150	3.81	25.42	37.80
16	406.4	0.164	4.17	27.76	41.40
16	406.4	0.172	4.37	29.10	43.30

Outside Diameter		Nominal Wall Thickness		Weight per Unit Lengths	
IN	MM	IN	MM	IN	MM
16	406.4	0.179	4.55	30.27	45.10
16	406.4	0.188	4.78	31.78	47.30
16	406.4	0.203	5.16	34.28	51.10
16	406.4	0.219	5.56	36.95	55.00
16	406.4	0.230	5.84	38.77	57.70
16	406.4	0.250	6.35	42.09	62.60
16	406.4	0.281	7.14	47.22	70.30
16	406.4	0.312	7.93	52.32	77.90
16	406.4	0.344	8.87	57.57	87.00
16	406.4	0.375	9.53	62.64	93.50
16	406.4	0.438	11.13	72.86	108.50
16	406.4	0.469	11.91	77.87	115.90
16	406.4	0.500	12.70	82.85	123.30
18	457.2	0.141	3.58	26.92	40.00
18	457.2	0.172	4.37	32.78	48.80
18	457.2	0.188	4.78	35.80	53.30
18	457.2	0.219	5.56	41.63	61.90
18	457.2	0.230	5.84	43.69	65.00
18	457.2	0.250	6.35	47.44	70.60
18	457.2	0.281	7.14	53.23	79.20
18	457.2	0.312	7.93	58.99	87.90
18	457.2	0.344	8.74	64.93	96.70
18	457.2	0.375	9.53	70.65	105.20
18	457.2	0.438	11.13	82.23	122.40
18	457.2	0.469	11.91	87.89	130.80
18	457.2	0.500	12.70	93.54	139.20
20	508.0	0.141	3.58	29.93	44.50
20	508.0	0.172	4.37	36.46	54.30
20	508.0	0.188	4.78	39.82	59.30
20	508.0	0.219	5.56	46.31	68.90
20	508.0	0.250	6.35	52.78	78.60
20	508.0	0.281	7.14	59.23	88.20
20	508.0	0.312	7.93	65.66	97.80
20	508.0	0.344	8.87	72.28	107.60
20	508.0	0.375	9.53	78.67	117.20
20	508.0	0.438	11.13	91.59	136.40
20	508.0	0.469	11.91	97.92	145.70
20	508.0	0.500	12.70	104.23	155.10
22	558.8	0.172	4.37	40.13	59.80
22	558.8	0.188	4.78	43.84	65.30
22	558.8	0.219	5.56	50.99	75.90

Outside Diameter		Nominal Wall Thickness		Weight per Unit Lengths	
IN	MM	IN	MM	IN	MM
22	558.8	0.250	6.35	58.13	86.50
22	558.8	0.281	7.14	65.24	97.10
22	558.8	0.312	7.93	72.34	107.70
22	558.8	0.375	9.53	86.69	129.10
22	558.8	0.438	11.13	100.96	150.30
22	558.8	0.469	11.91	107.95	160.60
22	558.8	0.500	12.70	114.92	171.00
24	609.6	0.172	4.37	43.81	65.20
24	609.6	0.188	4.78	47.86	71.30
24	609.6	0.219	5.56	55.67	82.80
24	609.6	0.250	6.35	63.47	94.50
24	609.6	0.281	7.14	71.25	106.10
24	609.6	0.312	7.93	79.01	117.70
24	609.6	0.375	9.53	94.71	141.00
24	609.6	0.438	11.13	110.32	164.30
24	609.6	0.469	11.91	117.98	175.60
24	609.6	0.500	12.70	125.62	186.90

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