

API 5L Carbon Seamless Steel Pipes



Certification	API
Grade	Gr.B/ X42/ X52/ X60/ X65
Out Diameter	1/2" - 48" (DN15 - DN1200)
Wall Thickness	Sch40/ 80/ 120/ 160
Length	6M/ 12M or Customized
Ends	Plain/ Bevel
Usage	Oil and Gas/ Water Pipeline
Surface	Bare/ Black/ Varnish/ Oiled/ Galvanized, 3PE, etc

API 5L Pipes, Seamless And Welded Line Pipes Sizes

NPS	OD	Wall Thickness					
		STD	Sch40	XS	Sch80	Sch160	XXS
1/8"	10.3	1.73	1.73	2.41	2.41		
1/4"	13.7	2.24	2.24	3.02	3.02		
3/8"	17.1	2.31	2.31	3.2	3.2		
1/2"	21.3	2.77	2.77	3.73	3.73	4.78	7.47
3/4"	26.7	2.87	2.87	3.91	3.91	5.56	7.82
1"	33.4	3.38	3.38	4.55	4.55	6.35	9.09
1 1/4"	42.2	3.56	3.56	4.85	4.85	6.35	9.7
1 1/2"	48.3	3.68	3.68	5.08	5.08	7.14	10.16
2"	60.3	3.91	3.91	5.54	5.54	8.74	11.07
2 1/2"	73	5.16	5.16	7.01	7.01	9.53	14.02
3"	88.9	5.49	5.49	7.62	7.62	11.13	15.24
3 1/2"	101.6	5.74	5.74	8.08	8.08		
4"	114.3	6.02	6.02	8.58	8.56	13.49	17.12
5"	141.3	6.55	6.55	9.53	9.53	15.88	19.05
6"	168.3	7.11	7.11	10.97	10.97	18.28	21.95
8"	219.1	8.18	8.18	12.7	12.7	23.01	22.23



10"	273	9.27	9.27	12.7	15.09	28.58	25.4
12"	323.8	9.53	10.31	12.7	17.48	33.32	25.4
14"	355.6	9.53	11.13	12.7	19.05	35.71	
16"	406.4	9.53	12.7	12.7	21.44	40.4	
20"	508	9.53	15.09	12.7	26.18	50.01	
24"	610	9.53	17.48	12.7	30.96	59.54	

Chemical composition (%)

Chemical Composition%								
	PSL1				PSL2			
Grade	C(Max.)	Mn(Max.)	P(Max.)	S(Max.)	C(Max.)	Mn(Max.)	P(Max.)	S(Max.)
A	0.22	0.9	0.03	0.03	0.22	1.2	0.025	0.015
B	0.26	1.2	0.03	0.03	0.22	1.3	0.025	0.015
X42	0.26	1.3	0.03	0.03	0.22	1.4	0.025	0.015
X46	0.26	1.4	0.03	0.03	0.22	1.4	0.025	0.015
X52	0.26	1.4	0.03	0.03	0.22	1.4	0.025	0.015
X56	0.26	1.4	0.03	0.03	0.22	1.4	0.025	0.015
X60	0.26	1.4	0.03	0.03	0.22	1.45	0.025	0.015
X65	0.26	1.45	0.03	0.03	0.22	1.65	0.025	0.015
X70	0.26	1.65	0.03	0.03	0.22	1.85	0.025	0.015

Mechanical properties

Mechanical Properties PSL1					
Grade	Yield Strength(Min.)		Tensile Strength(Min.)		Elongation
	Ksi	MPa	Ksi	MPa	
B	35	241	60	414	E=1944A0.2/U0.9
X42	42	290	60	414	
X46	46	317	63	434	
X52	52	359	66	455	
X56	56	386	60	414	
X60	60	414	63	434	
X65	65	448	66	455	



Mechanical Properties PSL2									
Grade	Yield Strength				Tensile Strength				Elongation
	Min		Max		Min		Max		
	Ksi	MPa	Ksi	MPa	Ksi	MPa	Ksi	MPa	
B	35	241	65	448	60	414	110	758	E=1944A0.2/U0.9
X42	42	290	72	496	60	414	110	758	
X46	46	317	76	524	63	434	110	758	
X52	52	359	77	531	66	455	110	758	
X56	56	386	79	544	71	490	110	758	
X60	60	414	82	565	75	517	110	758	
X65	65	448	87	600	77	531	110	758	

1. For each reduction of 0.01% below the specified maximum concentration for carbon, an increase of 0.05% above the specified maximum concentration for manganese is permissible, up to a maximum of 1.65% for > grades B, but < X52; up to a maximum of 1.75% for grades >X52, but <X70; and up to a maximum of 2.00% for grade X70.
2. The sum of the niobium, vanadium, and titanium concentrations shall be < 0.06%.
3. Unless otherwise agreed, 0.50% maximum for copper, 0.30% maximum for nickel, 0.30% maximum for chromium, and 0.12% maximum for molybdenum.