

API 5CT N80

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● Production Standard of API 5CT N80

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API 5CT N80 is a type of steel pipe that is typically used in well applications. It is manufactured to the specifications laid out in the API (American Petroleum Institute) standards. The N80 designation means that this pipe has been tested and meets specific mechanical and chemical properties requirements. This type of pipe is most often used in casing and tubing applications in the oil and gas industry. It is also known as OCTG (oil country tubular goods).

Product Name	API 5CT N80	
Size	O. D	26.67-508mm
	W. T	2.87-16.13mm
	Length	R1(5.49-6.71m),R2(8.23-9.14m),R3(11.58-13.72m)
Type of End Finish	1.Plain end 2.Short round thread 3.Long round thread 4.Buttress thread	
Surface	1.Black Painted 2.With oil 3.Bared or as per customers' requirement	
Standard	API 5CT	
Application	Tube for conveying gas, water, and oil in both and natural gas industries, etc.	

•Dimensions and Sizes of API 5CT N80 Tubing

DN	O. D.		Weight		W. T.		End Processing						
			Non-upset coupling-t hread	Upset coupling-t hread			Steel Grade						
	in	mm	lb./ft.	lb./ft.	in	mm	H40	J55	L80	N80	C90	T95	P110
2 3/8	2.38	60.3	4	–	0.167	4.24	PU	PN	PN	PN	PN	PN	–
			4.6	4.7	0.19	4.83	PN	PN	PN	PN	PN	PN	PN
			5.8	5.95	0.254	6.45	–	–	PN	PN	PN	PN	PN
			6.6	–	0.295	7.49	–	–	P	–	P	P	–
			7.35	7.45	0.336	8.53	–	–	PU	–	PU	PU	–
2 7/8	2.88	73	6.4	6.5	0.217	5.51	PN	PN	–	–	–	–	–
			7.8	7.9	0.276	7.01	–	–	–	–	–	–	–
			8.6	8.7	0.308	7.82	–	–	PLB	PLB	PLB	–	PLB
			9.35	9.45	0.34	8.64	–	–	PLB	PLB	PLB	–	PLB
			10.5	–	0.392	9.96	–	–	PLB	PLB	PLB	–	PLB
			11.5	–	0.44	11.18	–	–	–	–	PLB	–	–
3 1/2	3.5	88.9	7.7	–	0.216	5.49	PN	PN	PN	PN	PN	PN	–
			9.2	9.3	0.254	6.45	PN	PN	PN	PN	PN	PN	PN
			10.2	–	0.289	7.34	PN	PN	PN	PN	PN	PN	–
			12.7	12.95	0.375	9.52	–	–	PN	PN	PN	PN	PN
			14.3	–	0.43	10.92	–	–	P	–	P	P	–
			15.5	–	0.476	12.09	–	–	P	–	P	P	–
			17	–	0.53	13.46	–	–	P	–	P	P	–
4	4	102	9.5	–	0.226	5.74	PN	PN	PN	PN	PN	PN	–

			—	11	0.262	6.65	PU	PU	PU	PU	PU	PU	—
			13.2	—	0.33	8.38	—	—	P	—	P	P	—
			16.1	—	0.415	10.5 4	—	—	P	—	P	P	—
			18.9	—	0.5	12.7	—	—	P	—	P	P	—
			22.2	—	0.61	15.4 9	—	—	P	—	P	P	—
4 1/2	4.5	114	12.6	12.75	0.271	6.88	PNU	PN U	PNU	PN U	PNU	PN U	—
			15.2	—	0.337	8.56	—	—	P	—	P	P	—
			17	—	0.38	9.65	—	—	P	—	P	P	—
			18.9	—	0.43	10.9 2	—	—	P	—	P	P	PLB
			21.5	—	0.5	12.7	—	—	P	—	P	P	PLB
			23.7	—	0.56	14.2 2	—	—	P	—	P	P	PLB
			26.1	—	0.63	16	—	—	P	—	P	P	PLB

P—Plain; N—Non-upset coupling-thread; U—Upset coupling-thread; L—Integral

●Specification & Size of API 5CT N80 Casing

DN	O. D.		Weight		W. T.		End Machining Form					
	in	mm	lb/ft	kg/m	in	mm	H40	Steel Grade				
								J55 K55	L80	N80	C90 T95	P110
4 1/2	4.5	114.3	9.5	14.14	0.205	5.21	PS	PS	—	—	—	—
			10.5	15.63	0.224	5.69	—	PSB	—	—	—	—
			11.6	17.26	0.25	6.35	—	PSLB	PLB	PLB	PLB	PLB
			13.5	20.09	0.29	7.37	—	—	PLB	PLB	PLB	PLB
			15.1	22.47	0.337	9.56	—	—	—	—	—	PLB
5	5	127	11.5	17.11	0.22	5.59	—	PS	—	—	—	—
			13	19.35	0.253	6.43	—	PSLB	—	—	—	—
			15	22.32	0.296	7.52	—	PSLB	PLB	PLB	PLBE	PLB
			18	26.79	0.362	9.19	—	—	PLB	PLB	PLBE	PLB
			21.4	31.85	0.437	11.1	—	—	PLB	PLB	PLB	PLB
			23.2	34.53	0.478	12.14	—	—	—	—	PLB	—
			24.1	35.86	0.5	12.7	—	—	—	—	PLB	—
5 1/2	5.5	139.7	14	20.83	0.244	6.2	PS	PS	—	—	—	—

			15.5	23.07	0.275	6.98	—	PSLB	—	—	—	—
			17	25.3	0.304	7.72	—	PSLB	PLB	PLB	PLBE	PLB
			20	29.76	0.361	9.17	—	—	PLB	PLB	PLBE	PLB
			23	34.23	0.415	10.54	—	—	PLB	PLB	PLBE	PLB
			26.8	39.88	0.5	12.7	—	—	—	—	—	—
			29.7	44.2	0.562	14.27	—	—	—	—	—	—
			32.6	48.51	0.625	15.88	—	—	—	—	—	—
			35.3	52.53	0.687	17.45	—	—	—	—	—	—
			38	56.55	0.75	19.05	—	—	—	—	—	—
			40.5	60.27	0.812	20.62	—	—	—	—	—	—
			43.1	64.14	0.875	22.22	—	—	—	—	—	—
6 5/8	6.625	168.28	20	29.76	0.288	7.32	PS	PSLB	—	—	—	—
			24	35.72	0.352	8.94	—	PSLB	PLB	PLB	PLBE	PLB
			28	41.67	0.417	10.59	—	—	PLB	PLB	PLBE	PLB
			32	47.62	0.475	12.06	—	—	PLB	PLB	PLBE	PLB
7	7	177.8	17	25.3	0.231	5.87	PS	—	—	—	—	—
			20	29.76	0.272	6.91	PS	PS	—	—	—	—
			23	34.23	0.317	8.05	—	PSLB	PLB	PLB	PLBE	—
			26	38.69	0.362	9.19	—	PSLB	PLB	PLB	PLBE	PLB
			29	43.16	0.408	10.36	—	—	PLB	PLB	PLBE	PLB
			32	47.62	0.453	11.51	—	—	PLB	PLB	PLBE	PLB
			35	52.09	0.498	12.65	—	—	PLB	PLB	PLBE	PLB
			38	56.55	0.54	13.72	—	—	PLB	PLB	PLBE	PLB
			42.7	63.54	0.625	15.88	—	—	—	—	—	—
			46.4	69.05	0.687	17.45	—	—	—	—	—	—
			50.1	74.56	0.75	19.05	—	—	—	—	—	—
			53.6	79.77	0.812	20.62	—	—	—	—	—	—
			57.1	84.97	0.875	22.22	—	—	—	—	—	—
7 5/8	7.625	193.68	24	35.72	0.3	7.62	PS	—	—	—	—	—
			26.4	39.29	0.328	8.33	—	PSLB	PLB	PLB	PLBE	PLB
			29.7	44.2	0.375	9.52	—	—	PLB	PLB	PLBE	PLB
			33.7	50.15	0.43	10.92	—	—	PLB	PLB	PLBE	PLB
			39	58.05	0.5	12.7	—	—	PLB	PLB	PLBE	PLB
			42.8	63.69	0.562	14.27	—	—	PLB	PLB	PLB	PLB
			45.3	67.41	0.595	15.11	—	—	PLB	PLB	PLB	PLB
			47.1	70.09	0.625	15.88	—	—	PLB	PLB	PLB	PLB
			51.2	76.19	0.687	17.45	—	—	—	—	—	—
			55.3	80.3	0.75	19.05	—	—	—	—	—	—
8 5/8	8.625	219.08	24	35.72	0.264	6.71	—	PS	—	—	—	—

			28	41.62	0.304	7.72	PS	—	—	—	—	—
			32	47.62	0.352	8.94	PS	PSLB	—	—	—	—
			36	53.57	0.4	10.16	—	PSLB	PLB	PLB	PLBE	PLB
			40	59.53	0.45	11.43	—	—	PLB	PLB	PLBE	PLB
			44	65.48	0.5	12.7	—	—	PLB	PLB	PLBE	PLB
			49	72.92	0.557	14.15	—	—	PLB	PLB	PLBE	PLB
9 5/8	9.625	244.48	32.3	48.07	0.312	7.92	PS	—	—	—	—	—
			36	53.57	0.352	8.94	PS	PSLB	—	—	—	—
			40	59.53	0.395	10.03	—	PSLB	PLB	PLB	PLBE	—
			43.5	64.73	0.435	11.05	—	—	PLB	PLB	PLBE	PLB
			47	69.94	0.472	11.99	—	—	PLB	PLB	PLBE	PLB
			53.5	79.62	0.545	13.84	—	—	PLB	PLB	PLBE	PLB
			58.4	86.91	0.595	15.11	—	—	PLB	PLB	PLB	PLB
			59.4	88.4	0.609	15.47	—	—	—	—	—	—
			64.9	96.58	0.672	17.07	—	—	—	—	—	—
			70.3	104.62	0.734	18.64	—	—	—	—	—	—
			75.6	112.5	0.797	20.24	—	—	—	—	—	—
10 3/4	10.75	273.05	32.75	48.74	0.279	7.09	PS	—	—	—	—	—
			40.5	60.27	0.35	8.89	PS	PSB	—	—	—	—
			15.5	67.71	0.4	10.16	—	PSB	—	—	—	—
			51	75.9	0.45	11.43	—	PSB	PSB	PSB	PSBE	PSB
			55.5	82.59	0.495	12.57	—	—	PSB	PSB	PSBE	PSB
			60.7	90.33	0.545	13.84	—	—	—	—	PSBE	PSB
			65.7	97.77	0.595	15.11	—	—	—	—	PSB	PSB
			73.2	108.93	0.672	17.07	—	—	—	—	—	—
			79.2	117.86	0.734	18.64	—	—	—	—	—	—
			85.3	126.94	0.797	20.24	—	—	—	—	—	—
11 3/4	11.75		42	62.5	0.333	8.46	PS	—	—	—	—	—
			47	69.94	0.375	20.24	—	—	—	—	—	—
			54	80.36	0.435	8.46	—	—	—	—	—	—
			60	89.29	0.489	9.53	—	—	—	—	—	—
			65	96.73	0.534	11.05	—	—	—	—	—	—
			71	105.66	0.582	14.42	—	—	—	—	—	—
13 3/8	13.375	339.73	48	71.43	0.33	8.38	PS	—	—	—	—	—
			54.5	81.1	0.38	9.65	—	PSB	—	—	—	—
			61	90.78	0.43	10.92	—	PSB	—	—	—	—
			68	101.19	0.48	12.19	—	PSB	PSB	PSB	PSB	PSB
			72	107.15	0.514	13.06	—	—	PSB	PSB	PSB	PSB
16	16	406.4	65	96.73	0.375	9.53	PS	—	—	—	—	—

			75	111.61	0.438	11.13	—	PSB	—	—	—	—
			84	125.01	0.495	12.57	—	PSB	—	—	—	—
			109	162.21	0.656	16.66	—	P	P	P	—	P
18 5/8	18.625	473.08	87.5	130.21	0.435	11.05	PS	PSB	—	—	—	—
20	20	508	94	139.89	0.438	11.13	PSL	PSLB	—	—	—	—
			106.5	158.49	0.5	12.7	—	PSLB	—	—	—	—
			133	197.93	0.635	16.13	—	PSLB	—	—	—	—
P——Plain; S——Short-thread; L——Long-thread; B——Buttress thread; E——Extreme thread												

●Chemical Composition of API 5CT N80

Group	Grade	Type	C		Mn		Mo		Cr		Ni	Cu	P	S	Si
			min	max	min.	max.	min.	max.	min.	max.					
1	N80	1	—	—	—	—	—	—	—	—	—	—	0.03	0.03	—
2	N80	Q	—	—	—	—	—	—	—	—	—	—	0.03	0.03	—

●Mechanical Properties Tensile Strength and Yield Strength of API 5CT N80

API 5CT Casing Pipe Standard	API 5CT Casing Pipe Type	API 5CT Casing Pipe Tensile Strength MPa	API 5CT Casing Pipe Yield Strength MPa	API 5CT Casing Pipe Hardness Max.
API SPEC 5CT	1/Q	≥689	552 ~ 758	—