API 5CT K55

- ●Production Standard of API 5CT K55
- ●Specification & Size of API 5CT K55 Tubing
- ●Specification & Size of API 5CT K55 Casing
- ●Chemical Composition of API 5CT K55
- ●Mechanical Properties Tensile Strength and Yield Strength of API 5CT K55

●Production Standard of API 5CT K55

●API 5CT K55

API 5CT K55 is a pipe grade specified by the American Petroleum Institute. API 5CT K55 is a type of well casing that is typically used in well drilling operations. The casing and tubing are OCTG (oil country tubular goods) that are used to form the walls of the well. The steel pipe is placed in the well and held in place by cement. The cement helps to protect the well from collapse and keeps the well fluids from escaping.

●Dimensions and Sizes of API 5CT K55 Tubing

DN	O.D.		Weight		W.T.		End Processing						
			Non-upset coupling-thread	Upset coupling-thread			Steel Grade						
	in	mm	lb./ft.	lb./ft.	in	mm	H40	J55	L80	N80	C90	T95	P110
2-3/8	2.375	60.32	4.00	–	0.167	4.24	PU	PN	PN	PN	PN	PN	–
			4.60	4.70	0.190	4.83	PNU	PNU	PNU	PNU	PNU	PNU	PNU

			5.80	5.95	0.254	6.45	–	–	PNU	PNU	PNU	PNU	PNU
			6.60	–	0.295	7.49	–	–	P	–	P	P	–
			7.35	7.45	0.336	8.53	–	–	PU	–	PU	PU	–
2-7/8	2.875	73.02	6.40	6.50	0.217	5.51	PNU	PNU	–	–	–	–	–
			7.80	7.90	0.276	7.01	–	–	–	–	–	–	–
			8.60	8.70	0.308	7.82	–	–	PLB	PLB	PLBE	–	PLB
			9.35	9.45	0.340	8.64	–	–	PLB	PLB	PLBE	–	PLB
			10.50	–	0.392	9.96	–	–	PLB	PLB	PLB	–	PLB
			11.50	–	0.440	11.18	–	–	–	–	PLB	–	
3-1/2	3.500	88.90	7.70	–	0.216	5.49	PN	PN	PN	PN	PN	PN	–
			9.20	9.30	0.254	6.45	PNU	PNU	PNU	PNU	PNU	PNU	PNU
			10.20	–	0.289	7.34	PN	PN	PN	PN	PN	PN	–
			12.70	12.95	0.375	9.52	–	–	PNU	PNU	PNU	PNU	PNU
			14.30	–	0.430	10.92	–	–	P	–	P	P	–
			15.50	–	0.476	12.09	–	–	P	–	P	P	–
			17.00	–	0.530	13.46	–	–	P	–	P	P	–
4	4.000	101.60	9.50	–	0.226	5.74	PN	PN	PN	PN	PN	PN	–
			–	11.00	0.262	6.65	PU	PU	PU	PU	PU	PU	–
			13.20	–	0.330	8.38	–	–	P	–	P	P	–
			16.10	–	0.415	10.54	–	–	P	–	P	P	–
			18.90	–	0.500	12.70	–	–	P	–	P	P	–
			22.20	–	0.610	15.49	–	–	P	–	P	P	–
4-1/2	4.500	114.30	12.60	12.75	0.271	6.88	PNU	PNU	PNU	PNU	PNU	PNU	–
			15.20	–	0.337	8.56	–	–	P	–	P	P	–
			17.00	–	0.380	9.65	–	–	P	–	P	P	–
			18.90	–	0.430	10.92	–	–	P	–	P	P	PLB
			21.50	–	0.500	12.70	–	–	P	–	P	P	PLB
			23.70	–	0.560	14.22	–	–	P	–	P	P	PLB
			26.10	–	0.630	16.00	–	–	P	–	P	P	PLB
P——Plain；N—— Non-upset coupling-thread；U—— Upset coupling-thread； L——Integral													

•Specification & Size of API 5CT K55 Casing

DN	O. D.		Weight		W. T.		End Machining Form					
							Steel Grade					
	in	mm	lb/ft	kg/m	in	mm	H40	J55 K55	L80	N80	C90 T95	P110
4-1/2	4.500	114.3	9.50	14.14	0.205	5.21	PS	PS	–	–	–	–
			10.50	15.63	0.224	5.69	–	PSB	–	–	–	–
			11.60	17.26	0.250	6.35	–	PSLB	PLB	PLB	PLB	PLB
			13.50	20.09	0.290	7.37	–	–	PLB	PLB	PLB	PLB
			15.10	22.47	0.337	9.56	–	–	–	–	–	PLB
5	5.000	127	11.50	17.11	0.220	5.59	–	PS	–	–	–	–
			13.00	19.35	0.253	6.43	–	PSLB	–	–	–	–
			15.00	22.32	0.296	7.52	–	PSLB	PLB	PLB	PLBE	PLB
			18.00	26.79	0.362	9.19	–	–	PLB	PLB	PLBE	PLB
			21.40	31.85	0.437	11.10	–	–	PLB	PLB	PLB	PLB
			23.20	34.53	0.478	12.14	–	–	–	–	PLB	–
			24.10	35.86	0.500	12.70	–	–	–	–	PLB	–
5-1/2	5.500	139.7	14.00	20.83	0.244	6.20	PS	PS	–	–	–	–
			15.50	23.07	0.275	6.98	–	PSLB	–	–	–	–
			17.00	25.30	0.304	7.72	–	PSLB	PLB	PLB	PLBE	PLB
			20.00	29.76	0.361	9.17	–	–	PLB	PLB	PLBE	PLB
			23.00	34.23	0.415	10.54	–	–	PLB	PLB	PLBE	PLB
			26.80	39.88	0.500	12.70	–	–	–	–	–	–
			29.70	44.20	0.562	14.27	–	–	–	–	–	–
			32.60	48.51	0.625	15.88	–	–	–	–	–	–
			35.30	52.53	0.687	17.45	–	–	–	–	–	–
			38.00	56.55	0.750	19.05	–	–	–	–	–	–

			40.50	60.27	0.812	20.62	–	–	–	–	–	–
			43.10	64.14	0.875	22.22	–	–	–	–	–	–
6-5/8	6.625	168.28	20.00	29.76	0.288	7.32	PS	PSLB	–	–	–	–
			24.00	35.72	0.352	8.94	–	PSLB	PLB	PLB	PLBE	PLB
			28.00	41.67	0.417	10.59	–	–	PLB	PLB	PLBE	PLB
			32.00	47.62	0.475	12.06	–	–	PLB	PLB	PLBE	PLB
7	7.000	177.8	17.00	25.30	0.231	5.87	PS	–	–	–	–	–
			20.00	29.76	0.272	6.91	PS	PS	–	–	–	–
			23.00	34.23	0.317	8.05	–	PSLB	PLB	PLB	PLBE	–
			26.00	38.69	0.362	9.19	–	PSLB	PLB	PLB	PLBE	PLB
			29.00	43.16	0.408	10.36	–	–	PLB	PLB	PLBE	PLB
			32.00	47.62	0.453	11.51	–	–	PLB	PLB	PLBE	PLB
			35.00	52.09	0.498	12.65	–	–	PLB	PLB	PLBE	PLB
			38.00	56.55	0.540	13.72	–	–	PLB	PLB	PLBE	PLB
			42.70	63.54	0.625	15.88	–	–	–	–	–	–
			46.40	69.05	0.687	17.45	–	–	–	–	–	–
			50.10	74.56	0.750	19.05	–	–	–	–	–	–
			53.60	79.77	0.812	20.62	–	–	–	–	–	–
			57.10	84.97	0.875	22.22	–	–	–	–	–	–
7-5/8	7.625	193.68	24.00	35.72	0.300	7.62	PS	–	–	–	–	–
			26.40	39.29	0.328	8.33	–	PSLB	PLB	PLB	PLBE	PLB
			29.70	44.20	0.375	9.52	–	–	PLB	PLB	PLBE	PLB
			33.70	50.15	0.430	10.92	–	–	PLB	PLB	PLBE	PLB
			39.00	58.05	0.500	12.70	–	–	PLB	PLB	PLBE	PLB
			42.80	63.69	0.562	14.27	–	–	PLB	PLB	PLB	PLB
			45.30	67.41	0.595	15.11	–	–	PLB	PLB	PLB	PLB
			47.10	70.09	0.625	15.88	–	–	PLB	PLB	PLB	PLB
			51.20	76.19	0.687	17.45	–	–	–	–	–	–
			55.30	80.30	0.750	19.05	–	–	–	–	–	–
8-5/8	8.625	219.08	24.00	35.72	0.264	6.71	–	PS	–	–	–	–
			28.00	41.62	0.304	7.72	PS	–	–	–	–	–
			32.00	47.62	0.352	8.94	PS	PSLB	–	–	–	–
			36.00	53.57	0.400	10.16	–	PSLB	PLB	PLB	PLBE	PLB

			40.00	59.53	0.450	11.43	–	–	PLB	PLB	PLBE	PLB
			44.00	65.48	0.500	12.70	–	–	PLB	PLB	PLBE	PLB
			49.00	72.92	0.557	14.15	–	–	PLB	PLB	PLBE	PLB
9-5/8	9.625	244.48	32.30	48.07	0.312	7.92	PS	–	–	–	–	–
			36.00	53.57	0.352	8.94	PS	PSLB	–	–	–	–
			40.00	59.53	0.395	10.03	–	PSLB	PLB	PLB	PLBE	–
			43.50	64.73	0.435	11.05	–	–	PLB	PLB	PLBE	PLB
			47.00	69.94	0.472	11.99	–	–	PLB	PLB	PLBE	PLB
			53.50	79.62	0.545	13.84	–	–	PLB	PLB	PLBE	PLB
			58.40	86.91	0.595	15.11	–	–	PLB	PLB	PLB	PLB
			59.40	88.40	0.609	15.47	–	–	–	–	–	–
			64.90	96.58	0.672	17.07	–	–	–	–	–	–
			70.30	104.62	0.734	18.64	–	–	–	–	–	–
			75.60	112.50	0.797	20.24	–	–	–	–	–	–
10-3/4	10.750	273.05	32.75	48.74	0.279	7.09	PS	–	–	–	–	–
			40.50	60.27	0.350	8.89	PS	PSB	–	–	–	–
			15.50	67.71	0.400	10.16	–	PSB	–	–	–	–
			51.00	75.90	0.450	11.43	–	PSB	PSB	PSB	PSBE	PSB
			55.50	82.59	0.495	12.57	–	–	PSB	PSB	PSBE	PSB
			60.70	90.33	0.545	13.84	–	–	–	–	PSBE	PSB
			65.70	97.77	0.595	15.11	–	–	–	–	PSB	PSB
			73.20	108.93	0.672	17.07	–	–	–	–	–	–
			79.20	117.86	0.734	18.64	–	–	–	–	–	–
			85.30	126.94	0.797	20.24	–	–	–	–	–	–
11-3/4	11.750		42.00	62.50	0.333	8.46	PS	–	–	–	–	–
			47.00	69.94	0.375	20.24	–	–	–	–	–	–
			54.00	80.36	0.435	8.46	–	–	–	–	–	–
			60.00	89.29	0.489	9.53	–	–	–	–	–	–
			65.00	96.73	0.534	11.05	–	–	–	–	–	–
			71.00	105.66	0.582	14.42	–	–	–	–	–	–
13-3/8	13.375	339.73	48.00	71.43	0.330	8.38	PS	–	–	–	–	–
			54.50	81.10	0.380	9.65	–	PSB	–	–	–	–
			61.00	90.78	0.430	10.92	–	PSB	–	–	–	–

			68.00	101.19	0.480	12.19	–	PSB	PSB	PSB	PSB	PSB
			72.00	107.15	0.514	13.06	–	–	PSB	PSB	PSB	PSB
16	16.000	406.4	65.00	96.73	0.375	9.53	PS	–	–	–	–	–
			75.00	111.61	0.438	11.13	–	PSB	–	–	–	–
			84.00	125.01	0.495	12.57	–	PSB	–	–	–	–
			109.00	162.21	0.656	16.66	–	P	P	P	–	P
18-5/8	18.625	473.08	87.50	130.21	0.435	11.05	PS	PSB	–	–	–	–
20	20.000	508	94.00	139.89	0.438	11.13	PSL	PSLB	–	–	–	–
			106.50	158.49	0.500	12.70	–	PSLB	–	–	–	–
			133.00	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 K55

Grade	Type	C		Mn		Mo		Cr		Ni	Cu	P	S	Si
		min.	max.	min.	max.	min.	max.	min.	max.	max.	max.	max.	max.	max.
K55	–	0.34	0.38	1.25	1.5	–	–	–	0.15	–	0.2	0.02	0.015	–
a) The carbon content for L80 may be increased up to 0.50 % maximum if the product is oil-quenched. b) The molybdenum content for Grade C90 Type 1 has no minimum tolerance if the wall thickness is less than 17.78 mm. c) The carbon content for R95 may be increased up to 0.55 % maximum if the product is oil-quenched. d) The molybdenum content for T95 Type 1 may be decreased to 0.15 % minimum if the wall thickness is less than 17.78 mm. e) For EW Grade P110, the phosphorus content shall be 0.020 % maximum and the sulfur content 0.010 % maximum. f) NL = no limit. Elements shown shall be reported in product analysis.														

●Mechanical Properties Tensile Strength and Yield Strength of API 5CT K55

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	–	≥517	≥655	—