

## 6. Mechanical Properties

Standard		PSL	Grade	Yield Strength Rt0,5, ksi (MPa) minimum		Tensile Strength Rm, PSI (MPa) minimum		Total elongation under load %	Hardness HRC max
				minimum	maximum	minimum	maximum		
API 5 CT	Group 1	PSL1	H40	40(276)	80(552)	60(414)		0.5	
			R95	95(655)	110(758)	105(724)		0.5	
		PSL2	J 55	55(379)	80(552)	75(517)		0.5	
			K55	55(379)	80(552)	95(655)		0.5	
			N 80(1)	80(552)	110(758)	100(689)		0.5	23
			N 80(Q)	80(552)	110(758)	100(689)		0.5	
	Group 2	PSL2	L 80 (1)	80(552)	95(655)	95(655)		0.5	
Group 3	PSL1	P110	110(758)	140(965)	125(862)		0.6		
API 5L	As rolled or normalizing rolled	PSL1	L210 or A	30500(210)		48600(335)		Elongation (on 50 mm or 2 in) are calculated acc. to the wall thickness	
			L245 or B	35500(245)		60200(415)			
			L290 or X42	42100(290)		60200(415)			
			L320 or X46	46400(320)		63100(435)			
			L360 or X52	52200(360)		66700(460)			
			L390 or X56	56600(390)		71100(490)			
			L415 or X60	60200(415)		75400(520)			
	Normalized	PSL2	L245N or BN	35500(245)	65300(450)	60200(415)	95000(655)		
			L290N or X42N	42100(290)	71800(495)	60200(415)	95000(655)		
			L320N or X46N	46400(320)	76100(525)	63100(435)	95000(655)		
			L360N or X52N	52200(360)	76900(530)	66700(460)	110200(760)		
			L390N or X56N	56600(390)	79000(545)	71100(490)	110200(760)		
			L415N or X60N	60200(415)	81900(565)	75400(520)	110200(760)		
	Quenched and tempered	PSL2	L245Q or BQ	35500(245)	65300(450)	60200(415)	95000(655)		
			L290Q or X42Q	42100(290)	71800(495)	60200(415)	95000(655)		
			L320Q or X46Q	46400(320)	76100(525)	63100(435)	95000(655)		
			L360Q or X52Q	52200(360)	76900(530)	66700(460)	110200(760)		
			L390Q or X56Q	56600(390)	79000(545)	71100(490)	110200(760)		
			L415Q or X60Q	60200(415)	81900(565)	75400(520)	110200(760)		
			L450Q or X65Q	65300(450)	87000(600)	77600(535)	110200(760)		
Annex H Normalized	PSL2	L245NS or BNS	35500(245)	65300(450)	60200(415)	95000(655)			
		L290NS or X42NS	42100(290)	71800(495)	60200(415)	95000(655)			

