

# ASTM A193 B7 (Cr- Mo AISI 4140,4142,4145 )

Chemical Properties							
	C	Mn	P	S	Si	Cr	Mo
	0.37-0.49	0.65-1.10	0.035 Max	0.04 Max	0.15-0.35	0.75-1.20	0.15-0.25
Physical Properties	Dia	Minimum	Tensile	Yield	Elongation in	Reduction of	Hardness
		Tempering Temperature	Strength	Strength, min,	4D	Area	max
		( ° F )	min, ksi	0.2% offset, Ksi	min %	min %	
			( MPa)	( MPa)			
	2 1/2" and under	1,100 (593 ° C )	125(860)	105(720)	16	50	321HB or 35 HRc
	over 2 1/2" to 4"	1,100 (593 ° C )	115(795)	95(655)	16	50	302HB or 35 HRc
	over 4" to 7"	1,100 (593 ° C )	100(690)	75(515)	18	50	277HB or 29 HRc