Hardness HRB HRC HB	Rm N/mm²	Fe	Ni	Cr	Co	Mo	W	Si	Mn	C	Al	Ti	Li	P	S	Mg	Zn	Cu	Others
Unalloyed Steels																			
	750-1100																		
	740-1080																		
	800-1200																		
	750-1100																		
	1100-1300																		
241-277HB	890																		
	440-590																		
	690-880																		
	900-1100																		
	530-860																		
	700-950																		
	950-1150																		
	700-750																		
	1050-1100																		
	800																		
	850																		
	780-1180																		
	850																		
	800																		
	705																		
	510-710																		
	740																		
	560-1200																		
187HB	600		0.4	0.3		0.12		0.15-0.35	0.6-1.05	0.35				0.035	0.04			0.4	Nb 0.4
			0.4	0.4		0.15		0.10 min	0.29-1.06	0.3				0.048	0.058			0.4	Nb 0.4
	440-590																		
	440-590																		
	440-570																		
197HB	660		0.4	0.4		0.15		0.10 min	0.29-1.06	0.3				0.05	0.058			0.4	Nb 0.4
			0.4	0.3				0.10 min	0.6-1.35	0.3				0.035	0.04			0.4	
	750																		
	290-540																		
				0.4				0.10 min	0.29-1.06	0.3				0.025	0.025				
	300-500																		
	460-500																		
197HB	660		0.4	0.3		0.12		0.15-0.30	0.6-1.35	0.3				0.035	0.04			0.4	Nb 0.4
	750																		
	750																		
	460-580																		
								0.1-0.35	1.4	0.2				0.05	0.05				
								0.1-0.35	1.6	0.22				0.04	0.04				

Material Guide – Key to Recommended Inserts

Material Designation

P Unalloyed Steels | P Alloyed Steels | M Stainless Steels | M PH Stainless | K Cast Irons | N Aluminum & Alloys | S High Temp. Alloys | H Hard Materials