

























































	Material		Condition	Hardness		COLOR RING		
	UNS	ASTM / SAE		HRC	Brinell	Recommended	Alternate(s)	
 <p><b>Malleable Cast Iron</b></p>	Ferritic	F20000	A602 G M3210, J158 G M3210, A47 G 32510, A47 G 3201	Malleablized	-	≤ 160		
	Pearlitic	F22830, F23130, F23530, F20001, F20002	A220 G 40010, J125 pearlitic malleable, A220 G 45006, A220 G 45008, A220 G 50005, A602 G M4504, J158 G M4504, A602 G M5003, J158 G M5003	Malleablized and Heat Treated	-	≤ 200		
					≤ 23	≤ 240		
	Martensitic	F20003, F2410, F20004, F25530	A602 G M5503, J158 G M5503, A220 G 60004, A602 G M7002, J158 G M7002, A220 G 70003, A220 G 80002, A602 G M8501, J158 G M8501, A220 G 90001	Malleablized and Heat Treated	≤ 26	≤ 255		
					≤ 27	≤ 260		
					≤ 30	≤ 280		
≤ 35					≤ 320			

Tap Compass

Aluminum	Al Alloys, Wrought	Low Silicon	EC 1060, 1100, 1145, 1175, 1235, 2011, 2014, 2017, 2018, 2021, 2024, 2025, 2117, 2218, 2219, 2618, 3003, 3004, 3005, 4032, 5005, 5050, 5052, 5056, 5083, 5086, 5154, 5252, 5254, 5454, 5456, 5457, 5652, 5657, 6053, 6061, 6063, 6066, 6070, 6101, 6151, 6253, 6262, 6463, 6951, 7001, 7004, 7005, 7039, 7049, 7050, 7075, 7079, 7175, 7178	Cold drawn	-	30 to 80 500 kg		
				Solution treated and Aged	-	75 to 150 500 kg		
	Al Alloys, Wrought	≤ 7%	A140, 201.0, 208.0, 213.0, 222.0, 224.0, 242.0, 295.0, B295.0, 308.0, 319.0, 328.0, A332.0, F332.0, 333.0, 354.0, 355.0, C355.0, 356.0, A356.0, 357.0, 359.0, B443.0, 514.0, A514.0, 520.0, 535.0, 705.0, 707.0, A712.0, D712.0, 713.0, 771.0, 8500, A850.0, B850.0	As cast	-	40 to 100 500 kg		
				Solution treated and Aged	-	70 to 125 500 kg		
	Die Casting	7-10% Silicon	360.0, A360.0, 380.0, A380.0, C443.0, 518.0	As cast	-	40 to 100 500 kg		
				Solution treated and Aged	-	70 to 125 500 kg		
		7-14% Silicon	383.0, A384.0, 413.0, A413.0	As cast	-	40 to 100 500 kg		
				Solution treated and Aged	-	70 to 125 500 kg		
	≤ 14% Silicon	390.0, 392.0	As cast	-	40 to 100 500 kg			
			Solution treated and Aged	-	70 to 125 500 kg			

Titanium Alloys, Wrought	Commercially Pure	99.5	Annealed	-	≤ 170			
		99.2, 99.0, Ti-0.2Pd		-	≤ 200			
		99.0, 98.0, Ti-0.2Pd		≤ 29	≤ 275			
	Alpha and Alpha-Beta Alloys	Ti-8Mn, Ti2Al-11Sn-5Zr-1Mo, Ti-5Al-2, 5Sn ELI, Ti-5Al-6Sn-2Zr-1Mo, Ti-6Al-2Cb-1Ta-0.8Mo, Ti-6Al-2Sn-4Zr-2Mo, Ti-6Al-2Sn-4Zr-2Mo-2.5Si, Ti-6Al-2Sn-4Zr-6Mo		≤ 37	≤ 340			
		Ti-6Al-4V, Ti-6Al-4V ELI		≤ 38	≤ 350			
		Ti-5Al-2Sn-2Zr-4Mo-4Cr (Ti-17), Ti-6Al-6V-2Sn, Ti-7Al-4Mo, Ti-8Al-1Mo-1V		≤ 40	≤ 370			
		Ti-1Al-8V-5Fe		≤ 41	≤ 380			



General Purpose



Alloyed & Unalloyed Steels



Stainless Steels



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Cast Iron



Aluminum and Alloys



Titanium or Nickel