

Material & Finish Type	Specification	Condition	Tensile, psi	Yield, psi	Estimated Shear, psi	Elongation	Brinell Hardness (BHN)	Approx. Rockwell Hardness	Magnetic	RoHS	DFARs	REACH	Conflict Minerals
Aluminum 2024-T3/T4 Aluminum 6061-T6 Aluminum 7075-T6	ASTM B211	Cold Finished Bar or Extruded	60,000 45,000 83,000	45,000 40,000 73,000	30,000 22,500 41,500	20% 17% 11%	BHN 120 BHN 95 BHN 150	B69 B65 B80	Nonmagnetic	Yes - with an exemption*	Exempt	Compliant	Free
Brass 360	ASTM B16	Cold Finished Bar	58,000	45,000	29,000	25%	BHN 126	B78	Nonmagnetic	Yes - with an exemption*	Exempt	Compliant	Free
Copper 110	ASTM B187	Cold Finished Bar	32,000	10,000	16,000	55%	—	B10 to B50	Nonmagnetic	Yes - with an exemption*	Exempt	Compliant	Free
Copper Nickel 90/10	ASTM B151	Cold Finished Bar	43,000	16,000	21,500	30%	—	B15 to B65	Nonmagnetic	Yes - with an exemption*	Yes	Compliant	Free
Fiberglass (Green/Tan Color)	—	Non-Metallic	—	—	—	—	—	—	Nonmagnetic	—	—	—	—
Nickel Alloy 405 (Monel)	ASTM B164	Cold Finished Bar	85,000	60,000	42,500	24%	BHN 163	B85	Nonmagnetic	Yes - with an exemption*	Yes	Compliant	Free
Nickel Alloy C276 (Hastelloy)	ASTM A276	Cold Finished Bar	80,000	30,000	40,000	60%	BHN 179	B88	Mildly	Yes	Yes	Yes	Free
Neoprene (Black)	—	Non-Metallic	—	—	—	—	—	—	Nonmagnetic	—	—	—	—
Nylatron (Gray)	—	Non-Metallic	—	—	—	—	—	—	Nonmagnetic	—	—	—	—
Nylon 6/6 (Natural Color)	—	Non-Metallic	12,000	6,000	6,000	50%	n/a	R115	Nonmagnetic	Yes	Exempt	Compliant	Free
Phenolic (Natural Color)	—	Non-Metallic	—	—	—	—	—	—	Nonmagnetic	—	—	—	—
PTFE (White Color)	—	Non-Metallic	—	—	—	—	—	—	Nonmagnetic	—	—	—	—
Silicon Bronze	ASTM B98	Cold Finished Bar	70,000	43,000	35,000	22%	BHN 131	B75	Nonmagnetic	Yes - with an exemption*	Exempt	Compliant	Free
Stainless Steel 17-4 PH	ASTM A564/Type 630	Condition A Cond. H900 (Thru Hard)	160,000 190,000	145,000 170,000	80,000 95,000	15% 15%	BHN 264-348 BHN 373-419	C28-C38 C40-C45	Magnetic	Yes	Yes	Compliant	Free
Stainless Steel 18-8 (303)	ASTM A582	Condition A	90,000	35,000	45,000	50%	BHN 160	B83	Mildly	Yes	Yes	Compliant	Free
Stainless Steel 316/316L	ASTM A276	Condition A	85,000	30,000	42,500	45%	BHN 160	B83	Mildly	Yes	Yes**	Compliant	Free
Stainless Steel 316H5	ASTM A276	Condition B (Strain Hard)	125,000	100,000	62,500	26%	BHN 250	C25	Nonmagnetic	Yes	Yes	Compliant	Free
Stainless Steel 410	ASTM A276	Cold Finished	95,000	65,000	47,500	30%	BHN 185	B90	Magnetic	Yes	Yes	Compliant	Free
Stainless Steel 416	ASTM A582	Condition A Cond. T (Thru Hard)	75,000 123,000	40,000 110,000	37,500 61,500	30% 11%	BHN 155 BHN 245-300	B82 C24-C32	Magnetic	Yes	Yes	Compliant	Free
Stainless Steel Alloy 20	ASTM B473	Cold Finished	80,000	35,000	40,000	30%	BHN185	B90	Mildly	No	Yes	Compliant	Free
Stainless Steel A286	ASTM A638 GR660	Condition Type 2 (AMS 5732)	160,000	120,000	80,000	27%	BHN 248	C24	Nonmagnetic	Yes	Yes	Compliant	Free
Steel 12L14 Steel 1018 Steel Grade 2 Steel Grade 1 Steel Grade A	ASTM A108 ASTM A108 SAE J429 SAE J429 ASTM A307	Cold Finished for Swiss & Hot Rolled for Turret Cold Finished Cold Finished Cold Finished	78,000 67,000 60,000 60,000 60,000	60,000 45,000 36,000 36,000 36,000	39,000 33,500 30,000 30,000 30,000	15% 36% 18% 18% 18%	BHN 160 BHN 110 BHN 121 BHN 121 BHN 121	B84 B40 B70 B70 B69	Magnetic	Yes - with an exemption*	Exempt	Compliant	Free
Steel 1045	ASTM A108	Cold Finished	91,000	77,000	45,500	12%	BHN 180	B90	Magnetic	Yes - with an exemption*	Exempt	Compliant	Free
Steel 4140/4142 Alloy Pre-Hardened Bar	ASTM A108	Pre-Thru Hardened Bar	140,000	116,000	70,000	18%	BHN 335-402	C36-C43 (Target C39)	Magnetic	Yes - with an exemption*	Yes	Compliant	Free
Steel 4140/41L40 Alloy	ASTM A108	Cold Finished Thru Hardened	105,000 140,000	85,000 116,000	52,500 70,000	15% 18%	BHN 187 BHN 300-402	B91 (C12) C32-C43	Magnetic	Yes - with an exemption*	Yes	Compliant	Free
Steel 1144	ASTM A311 Class B	Heavy-draft cold drawn and stress relieved	128,000	106,000	64,000	12%	BHN 262	C26	Magnetic	Yes - with an exemption*	Exempt	Compliant	Free
Titanium Grade 2 (Ti CP3)	ASTM B348 GR2	Annealed	50,000	55,000	37,500	20%	BHN 163	B80	Nonmagnetic	Yes	Yes	Compliant	Free
Titanium Grade 5 (Ti 6Al-4V)	ASTM B348 GR5	Annealed	140,000	125,000	70,000	18%	BHN 296	C32	Nonmagnetic	Yes	Yes	Compliant	Free

*Material Certifications available upon request.

**AMPG uses dual certified Type 316/316L stainless material. Meets all 316 stainless properties but has lower carbon content, making it more suitable for welding.