

Aluminum Alloys


1 Excellent • 2 Very Good • 3 Good • 4 Fair • 5 Poor

HRB Rockwell Hardness, B Scale

HRE Rockwell Hardness, E Scale

HRC Rockwell Hardness, C Scale

BHN Brinell Hardness Scale

 No Data Available
metal not usually
used in this condition

Alloy	Similar Designation	Usual Condition	Castability	Machinability	Corrosion Resistance	Weldability	Hardenable	Density (g/cm ³)	As-Cast Tensile Strength (psi)	As-Cast Yield Strength (psi)	As-Cast Elongation (%)	Annealed Tensile Strength (psi)	Annealed Yield Strength (psi)	Annealed Elongation (%)	Heat Treated Tensile Strength (psi)	Heat Treated Yield Strength (psi)	Heat Treated Elongation (%)	Heat Treated Hardness	Comments
A 201 (A02010)	AMS 4223 MIL A 21180 MIL C 19494	T6	5	1	4	4	Yes	2.8							67,000	59,000	7	HRB 80	Highest strength alloy. Excellent machinability.
A 354 (A03540)	MIL A 21180	T6	1	3	3	1	Yes	2.7							50,000	38,000	4	HRE 75/95	High strength.
355 (A3550)	ASTM B26 ASTM B618	T6	2	3	3	2	Yes	2.7	23,000	12,000	3	HRE 55/70			35,000	25,000	3	HRE 73/98	Good strength and corrosion resistance. Leak proof and pressure tight.
C 355 (A33550)	AMS 4215 MIL A 21180 ASTM B615	T6	2	3	3	2	Yes	2.7							38,000	25,000	5	HRE 80/100	Premium quality 355 alloy.
356 (A03560)	AMS 4260 ASTM B26	T6	1	4	2	2	Yes	2.7	24,000	18,000	6	HRE 50/65			33,000	24,000	3	HRE 73/90	Most popular aluminum alloy. Good strength, corrosion resistance, and stability. Pressure tight.
A 356 (A13560)	AMS 4218	T6	1	4	2	2	Yes	2.7	23,000	12,000	6	HRE 50/65			38,000	28,000	5	HRE 73/90	Premium quality 356 alloy. Poor brazability. Good weldability.
A 357 (A13570)	AMS 4219	T6	2	3	2	1	Yes	2.7	25,000	13,000	5	HRE 50/65			45,000	35,000	3	HRE75/95	Premium quality alloy. Higher strength than A 356.
514 (A05140)	214, ASTM 0618 ASTM B26	As-Cast	5	1	1	2	No	2.7	25,000	12,000	3	HRE 60							Excellent for anodizing.
535 (A05350)	Almag 35 AMS 4239	As-Cast	4	1	1	5	No	2.6	40,000	20,000	13	HRE 80							Maximum properties in the as-cast condition. Good for marine and other highly corrosive applications.
712 (A07120)	ASTM B26 40E	As-Cast 3 wk Aging	4	1	3	4	Yes	2.8	35,000	25,000	5	HRE 80							Good brazing alloy. Self aging.
713 (A07130)	ASTM B26 Tenzalloy	As-Cast 3 wk Aging	4	1	3	4	Yes	2.8	32,000	22,000	3	HRE 80							Excellent machinability.



1-800-221-0419 • 3 Planeview Drive • Londonderry, New Hampshire 03053

Email Info@AlCuMet.com • Website www.AlCuMet.com