Aluminum Alloys

		Mechanical Properties					
Alloy	Heat Treating	Ultimate Tensile Strength KSI	Min. Yield Strength Set @ 2% KSI	Elongation % in 2"	Hardness Rockwell E Scale 1/16" Ball	Pressure Tightness	Machin-ability
319.0	T6	36	24	2.0	85.5	B	A
355.0	T51	28	23	1.5	76.0	A	C
355.0	T6	35	25	3.0	85.5	A	B
C355.0	T6	39	29	5.0	89	A	B
356.0	T51	25	20	2.0	71	A	C
356.0	T6	33	24	3.5	79	A	A
A356.0	T51	26	18	3.0	71	A	C
A356.0	T6	40	30	6.0	82.5	A	A
357.0	T51	26	17	3.0	80	B	C
357.0	T6	45	35	3.0	91	B	B
A357.0	T6	45	35	3.0	89	B	B
380.0	NONE	46	23	3.5	85.5	B	C
712.0	*	35*	25*	5.0*	82.5	C	A

712.0 also known as D712, D612, and 40E

Zinc Alloys

ZA3	NONE	41	-	10.0	87	C	C
ZA8	NONE	34	30	1.5	95.5	C	C
ZA12	NONE	43	30	2.0	93	C	B
ZA27	NONE	61	46	9.5	100	C	B

These values are for separately cast test bars, and are typical values.

* Test 30 days after casting

A= Excellent B= Good C= Fair

Applicable Military Specifications

- Mechanical/Chemical Inspection to MIL-A-21180 QQ-A-601, AMS-4217
- System Control to MIL-1-45208
- Gage Control to MIL-STD-45662
- Penetrant Inspection to MIL-STD-6866
- Radiographic Inspection to MIL-STD-453, MIL-STD-2175
- Heat Treat to MIL-H-6088
- N.D.T. to MIL-STD-410