

ALLOY DESCRIPTION

This alloy is used when high strength with wear and/or galling resistance is required. It can eliminate hard-coat anodizing in some applications. Typical applications include air compressor pistons and automotive transmission valve parts. It has good machining characteristics, producing small chips and good surface finish.

TYPICAL MECHANICAL PROPERTIES

Temper	Tensile (.500" Dia. Specimen)							Hardness Rockwell "B" 100 kg 1/16" Ball
	Ultimate		Yield		Elongation/4D %	Elastic Modulus		
	KSI	MPa	KSI	MPa		PSIx10 ⁶	GPa	
T651	62	427	57	393	8.5	11.1	77	74
T8	60	414	53	365	8.5	11.1	77	74

COMPARATIVE CHARACTERISTICS

Temper	Corrosion Resistance	Cold Workability ²	Machinability ²	Gall Resistance ²	Wear Resistance ²
	General ¹				
T651	C	D	B	A	A
T8	C	D	B	A	A

1 Ratings A through E are relative ratings in decreasing order of merit, based on exposures to sodium chloride solution by intermittent spraying or immersion. Alloys with A and B ratings can be used in industrial and seacoast atmospheres without protection. Alloys with C, D and E ratings generally should be protected at least on faying surfaces.

2 Ratings A through D for Workability (cold), A through E for Machinability and A through C for Anodize Response, are relative ratings in decreasing order of merit.

APPLICABLE SPECIFICATIONS

Cold Finished	Extruded
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CHEMICAL COMPOSITION LIMITS

Weight %	Si	Fe	Cu	Mg	Zn	Bi	Ti	Others	
								Each	Total
Minimum	9.0	-	2.5	0.7	-	1.0	-	-	-
Maximum	11.5	0.50	3.5	1.4	0.10	2.0	0.05	0.05	0.15