



ALLOY DESCRIPTION¹

One of the Magnesium alloys. Typically used in hydraulic Tube and Appliance applications. Good corrosion resistance and good weldability.

¹ Alloy subject to cast lot quantity restriction

TYPICAL MECHANICAL PROPERTIES

Temper	Tensile (.500" Dia. Specimen)					Hardness	Shear		Fatigue		Modulus	
	Ultimate		Yield		Elongation/4D		Brinell 500kg 10 mm	Ultimate Shearing Strength		Endurance Limit - R.R. Moore Type		Modulus of Elasticity
	KSI	MPa	KSI	MPa		%		KSI	MPa	KSI	MPa	KSI x 10 ³
O	28	195	13	90	25	47	18	125	16	110	10.2	70

COMPARATIVE CHARACTERISTICS

Temper	Corrosion Resistance		Cold Workability ³	Machinability ³	Anodize Response ³	Brazeability ⁴	Weldability ⁴		
	General ¹	Stress ²					Gas	Arc	Spot
O	A	A	A	D	*	C	A	A	B

- 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.
- Stress-corrosion cracking ratings are based on service experience and laboratory tests of specimens exposed to the 3.5% sodium chloride alternate immersion test.
 - A= No known instance of failure in service or in laboratory tests.
 - B= No known instance of failure in service; limited failures in laboratory tests of short transverse specimens.
 - C= Service failures with sustained tension stress acting in short transverse direction relative to grain structure; limited failures in laboratory tests of long transverse specimens.
 - D= Limited service failures with sustained longitudinal or long transverse.
- 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.
- Ratings A through D for Weldability and Brazeability are relative ratings defined as follows:
 - A= Generally weldable by all commercial procedures and methods.
 - B= Weldable with special techniques or for specific applications that justify preliminary trials or testing to develop welding procedure and weld performance.
 - C= Limited weldability because of crack sensitivity or loss in resistance to corrosion and mechanical properties.
 - D= No commonly used welding methods have been developed.

* DATA NOT AVAILABLE

APPLICABLE SPECIFICATIONS

Cold Finished	Extruded

CHEMICAL COMPOSITION LIMITS

Weight %	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Others	
										Each	Total
Nominal	0.25	0.4	0.1	0.1	2.2 – 2.8	0.15 – 0.35	...	0.1	...	0.05	0.15

TYPICAL PHYSICAL PROPERTIES

Characteristic		English	Metric
Nominal Density (68 °F/20 °C)		0.097	g/cm ³
Melting Range		1125 °F - 1200 °F	605 °C – 650 °C
Specific Heat (212 °F/100 °C)			
Coefficient of Thermal Expansion	Linear 68 °F-212 °F 20 °C-100 °C	13.2	23.8
	Volumetric 68 °F/20 °C		
Thermal Conductivity (68 °F/20 °C)	O	960	138 W/m x K
Electrical Conductivity (68 °F/20 °C)	Equal Volume	O	35
	Equal Weight	O	116

* DATA NOT AVAILABLE