

Color code
Gray

PRODUCTION PROGRAM

According to EU directives:
2000/53/EU (ELV) – 2011/65/EU (RoHS II)

Unit: in	●	■	■	◆
Drawn	0.551 - 3	0.787 - 2.559	Thick. 0.472 - 2.165	0.787 - 2.5
Extruded	1.181 - 10	1.181 - 6.5	Thick. 1.181 - 5	-

PRESENTATION

This alloy has high mechanical properties, excellent resistance to fatigue, good attitude to forging and a fair machinability.

Main applications: high structural resistance components for aircraft and defense.



Samples of finished products made of Eural bars

Properties	T3/T4/T6
Machinability	Excellent
Protective anodizing	Good
Decorative anodizing	Acceptable
Hard anodizing	Not recommended
Resistance to atmospheric corrosion	Excellent
Resistance to marine corrosion	Good
MIG-TIG weldability	Excellent
At resistance weldability	Excellent
Brazing weldability	Good
Plastic formability when cold	Acceptable
Plastic formability when hot	Good

Legenda



Chemical composition	
Si	0.50 - 1.20
Fe	≤ 0.70
Cu	3.90 - 5.00
Mn	0.40 - 1.20
Mg	0.20 - 0.80
Cr	≤ 0.10
Ni	
Zn	≤ 0.25
Ti	≤ 0.15
Pb	
Others	Each 0.05 Total 0.15
Al	Remainder

Physical properties	
Density	lb / in ³ 0.1012
Modulus of elasticity	ksi 10,500
Coefficient of thermal expansion	x10 ⁻⁶ / °F 12.8
Thermal conductivity at 68°F	Btu / ft h °F T4: 77.0 T6: 89
Typical electrical resistivity at 68°F	Ω mm ² / m T4: 0.051 T6: 0.043



Minimum mechanical properties				
Temper	Diam. in	UTS ksi	YTS ksi	HBW A% Typical
Drawn	T3	≤ 3	55.1 42.1	8 110
	T351	≤ 3	55.1 42.1	6 110
	T4	≤ 3	55.1 31.9	12 110
	T451	≤ 3	55.1 31.9	10 110
	T6	≤ 3	65.3 55.1	8 140
	T651	≤ 3	65.3 55.1	6 140
Extruded	T4, T4510, T4511	≤ 3	59.5 39.2	12 110
	T4, T4510, T4511	3 < D ≤ 6	56.5 36.3	10 110
	T4, T4510, T4511	6 < D ≤ 8	50.8 33.4	8 110
	T6, T6510, T6511	≤ 3	66.7 60.2	7 140
	T6, T6510, T6511	3 < D ≤ 6	67.4 60.9	7 140
	T6, T6510, T6511	6 < D ≤ 8	62.4 50.8	6 140
T6, T6510, T6511	8 < D ≤ 10	60.9 46.4	5 140	