

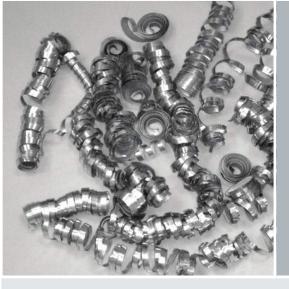


Colour code Brown



## **PRODUCTION PROGRAM**

Unit: in					According to EU directives:
Drawn	0.551 - 3	0.787 - 2.559	Thick. 0.472 - 2.165	0.787 - 2.5	2000/53/EU (ELV) – 2011/65/EU (RoHS II)
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.

2014A by Eural can also be made according to aerospace BS L168 standard, which requires higher mechanical properties compared to traditional EN standards. This version is available only for extruded bars in T6511 temper, from diameter 1.181 in up to 6 in.

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

Properties		T3/T4/T6			
Machinability					
Protective anodizing					
Decorative anodizing					
Hard anodizing					
Resistance to atmospheric corrosion					
Resistance to marine corrosion					
MIG-TIG weldability					
At resistance weldability					
Brazing weldability					
Plastic formability when cold					
Plastic formability when hot					

Good

Acceptable

Samples of finished products made of Eural bars



Chemical composition				
Si	0.50 - 0.90			
Fe	≤ 0.50			
Cu	3.90 - 5.00			
Mn	0.40 - 1.20			
Mg	0.20 - 0.80			
Cr	≤ 0.10			
Ni	≤ 0.10			
Zn	≤ 0.25			
Ti	≤ 0.15			
Pb				
Others	Each 0.05 Total 0.15			
AI	Remainder			

Excellent

Physical properties				
Density	lb	0.1012		
Density	in <sup>3</sup>			
Modulus of elasticity	ksi	10,500		
Coofficient of thermal expansion	x10 <sup>-6</sup>	40.0		
Coeffi cient of thermal expansion	°F	12.8		
Thermal conductivity of 69°E	Btu	T6: 89		
Thermal conductivity at 68°F	ft h °F	10.09		
Turning algorithmat 60°E	$\Omega \text{ mm}^2$	T6: 0.043		
Typical electrical resistivity at 68°F	m	10. 0.043		

Not recommended

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Minimum mechanical properties						
			UTS	YTS		HBW
	Temper	Diam. in	ksi	ksi	A%	Typical
Drawn	Т3	≤ 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	56.6	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
BSL168 Extruded	T6, T6510, T6511	≤ 3	71.1	63.8	7	-
	T6, T6510, T6511	3 < D ≤ 6	69.6	63.1	7	-
	T6, T6510, T6511	6 < D ≤ 8	67.4	60.9	7	-
	T6, T6510, T6511	8 < D ≤ 10	63.1	56.6	7	-

Legenda