2014A by EURAL

Color code
Brown

GNUTTI S.p.A.

PRODUCTION PROGRAM

Unit: in	●	■	▬	⬢
Drawn	0.551 - 3	0.787 - 2.559	Thick. 0.472 - 2.165	0.787 - 2.362
Extruded	1.181 - 10	1.969 - 6.5	Thick. 1.181 - 5	–

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

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 1.818" up to 6".

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	Excellent
Decorative anodizing	Acceptable
Hard anodizing	Acceptable
Resistance to atmospheric corrosion	Excellent
Resistance to marine corrosion	Acceptable
MIG-TIG weldability	Excellent
At resistance weldability	Good
Brazing weldability	Acceptable
Plastic formability when cold	Acceptable
Plastic formability when hot	Excellent

Legend

Excellent | Good | Acceptable | Not recommended

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
Zr + Ti	0.20
Al	Remainder

Physical properties		
Density	$\frac{lb}{in^3}$	0.101
Modulus of elasticity	ksi	10,500
Coefficient of thermal expansion	$\frac{x10^{-6}}{°F}$	12.8
Thermal conductivity at 68 °F	$\frac{Btu}{ft\ h\ °F}$	T4: 77.4 T6: 89.5
Electrical resistivity at 68 °F	$\frac{\Omega\ mm^2}{m}$	T4: 0.051 T6: 0.043

Mechanical properties	Temper	Rm MPa	Rp 0,2 MPa	A%	HBW
Extruded	T4 T4511	56.6	36.3	10	–
	T6 T6511	67.4	60.9	7	–
	T6511 BSL168	71.1	63.8	7	–
Drawn	T3	55.1	42.1	8	–
	T351	55.1	42.1	6	–
	T4	55.1	31.9	12	–
	T451	55.1	31.9	10	–
	T6	65.3	55.1	8	–
	T651	65.3	55.1	6	–