2014 by EURAL

Colour code
Gray

EURAL GNUTTI S.p.A.

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

PRODUCTION PROGRAM

Unit: mm	●	■	▬	⬢
Drawn	14 ÷ 76,2	20 ÷ 65	Spess. 12 ÷ 55	20 ÷ 63,5
Extruded	30 ÷ 254	50 ÷ 165	Spess. 30 ÷ 127	–

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	
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	

Legenda

Excellent | Good | Acceptable | Not recommended

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	Kg / dm³	2,80
Modulus of elasticity	MPa	72.400
Coefficient of thermal expansion	x10⁻⁶ / °C	23
Thermal conductivity at 20°C	W / mk	T4: 134 T6: 155
Typical electrical resistivity at 20°C	Ω mm² / m	T4: 0,051 T6: 0,043

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Mechanical properties					
	Temper	Diam. mm	Rm MPa	Rp0,2 MPa	A%	HBW Typical
Extruded	T3	≤ 80	380	290	8	110
	T351	≤ 80	380	290	6	110
	T4	≤ 80	380	220	12	110
	T451	≤ 80	380	220	10	110
	T6	≤ 80	450	380	8	140
	T651	≤ 80	450	380	6	140
Extruded	T4, T4510, T4511	≤ 75	410	270	12	110
	T4, T4510, T4511	75 < D ≤ 150	390	250	10	110
	T4, T4510, T4511	150 < D ≤ 200	350	230	8	110
	T6, T6510, T6511	≤ 75	460	415	7	140
	T6, T6510, T6511	75 < D ≤ 150	465	420	7	140
	T6, T6510, T6511	150 < D ≤ 200	430	350	6	140
	T6, T6510, T6511	200 < D ≤ 250	420	320	5	140

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