

# 6082 by EURAL



Color code  
turquoise

# EURAL

GNUTTI S.p.A.

## PRODUCTION PROGRAM

Unit: in	●	■	■	◆
Drawn	0.313 - 3	0.472 - 2.559	Thick. 0.472 - 2.165	0.472 - 2.362
Extruded	1.181 - 10	0.787 - 6.5	Thick. 0.394 - 5	—

### According to EU directives:

2000/53/EC (ELV) – 2011/65/EU (RoHS II)



## PRESENTATION

This alloy has medium mechanical properties, but high resistance to corrosion and excellent attitude to weldability, hot forging and anodizing.

**Main applications:** highly stressed structural parts for ground and nautical means of transport, anti-impact lateral bars, door frame, space frame and sub frame for cars, hydraulic systems, stairs and scaffoldings, platforms, screws and rivets, particulars for nuclear plants, food industry.

Samples of finished products made of Eural bars

Properties	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	Acceptable
At resistance weldability	Not recommended
Brazing weldability	Not recommended
Plastic formability when cold	Acceptable
Plastic formability when hot	Not recommended

### Legend



Chemical composition	
Si	0.70 - 1.30
Fe	≤ 0.50
Cu	≤ 0.10
Mn	0.40 - 1.00
Mg	0.60 - 1.20
Cr	≤ 0.25
Ni	
Zn	≤ 0.20
Ti	≤ 0.10
Zr	
Pb	
Bi	
Al	Remainder

Physical properties		
Density	$\frac{\text{lb}}{\text{in}^3}$	0.0979
Modulus of elasticity	ksi	10,008
Coefficient of thermal expansion	$\frac{\times 10^{-6}}{^{\circ}\text{F}}$	13.3
Thermal conductivity at 68 °F	$\frac{\text{W}}{\text{mk}}$	95.9
Electrical resistivity at 68 °F	$\frac{\Omega \text{ mm}^2}{\text{m}}$	0.037

Mechanical properties					
	Temper	UTS ksi	YTS ksi	A%	HBW
Extruded	T6	45.0	37.7	8	95
	T6 *	47.1	45.0	9	105
Drawn	T6	45.0	37.0	10	95
	T6 *	55.1	52.2	10	110

\* Typical Eural properties