

6082 by EURAL



Colour code
EU turquoise

EURAL

GNUTTI S.p.A.

PRODUCTION PROGRAM

Unit: mm	●	■	■	◆
Drawn	6 ÷ 76,2	10 ÷ 65	Thick. 12 ÷ 55	10 ÷ 63,5
Extruded	30 ÷ 254	30 ÷ 165	Thick. 30 ÷ 127	-

According to EU directives:

2000/53/CE (ELV) - 2018/740/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.

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

Legend



Samples of finished products made of Eural bars



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
Pb	
Bi	
Others	Each 0,05 Total 0,15
Al	Remainder

Physical properties	
Density	$\frac{\text{Kg}}{\text{dm}^3}$ 2,71
Modulus of elasticity	MPa 69.000
Coefficient of thermal expansion	$\frac{\times 10^{-6}}{^{\circ}\text{C}}$ 24
Thermal conductivity at 20°C	$\frac{\text{W}}{\text{mk}}$ 167
Typical electrical resistivity at 20°C	$\frac{\Omega \text{ mm}^2}{\text{m}}$ 0,037

Minimum mechanical properties					
	Temper	Diam. mm	Rm MPa	Rp0,2 MPa	HBW A% Typical
Drawn	T6	≤ 80	310	255	10 95
	T6	≤ 150	310	260	8 95
Extruded	T6	150 < D ≤ 200	280	240	6 95
	T6	200 < D ≤ 250	270	200	6 95

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