

2011

Colour code
EU red



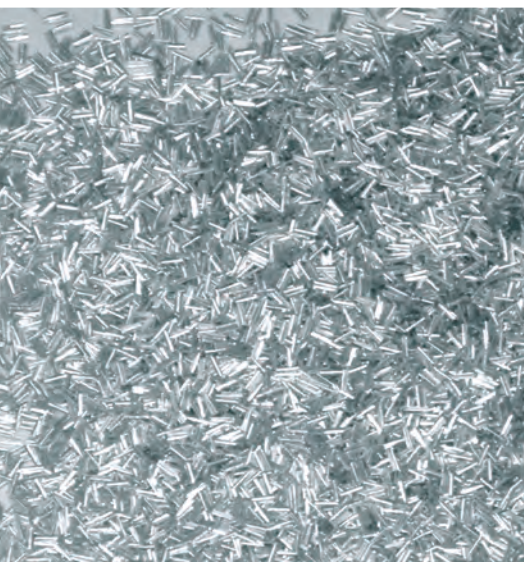
Colour code
USA brown



EURAL

GNUTTI S.p.A.

According to EU directives:
2000/53/CE (ELV) - 2002/95/CE (RoHS)



PRESENTATION

This alloy is the most often selected for high speed automatic lathes. It offers the following advantages:

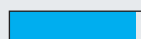
- easy machining with any equipment;
- cutting stress lower than most of other alloys;
- longer life of cutting tools;
- cutting area always clean due to very thin chip;
- high mechanical properties;
- possibility to anodize finished parts in several colours *.

Main applications: screws, bolts, nuts, threaded bars.

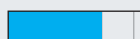
* To get an optimal surface finishing of anodized pieces, we suggest using suitable lubricants during machining.

Properties	T3/T6	T8
Machinability	Excellent	Excellent
Protective anodizing	Good	Good
Decorative anodizing	Acceptable	Acceptable
Hard anodizing	Not recommended	Not recommended
Resistance to atmospheric corrosion	Excellent	Excellent
Resistance to marine corrosion	Good	Good
MIG-TIG weldability	Acceptable	Acceptable
At resistance weldability	Not recommended	Not recommended
Brazing weldability	Not recommended	Not recommended
Plastic formability when cold	Good	Good
Plastic formability when hot	Acceptable	Acceptable

Legend



Excellent



Good



Acceptable



Not recommended



Chemical composition	
Si	≤0,40
Fe	≤0,70
Cu	5,00 ÷ 6,00
Mn	
Mg	
Cr	
Ni	
Zn	≤0,30
Ti	
Zr	
Pb	0,20 ÷ 0,40
Bi	0,20 ÷ 0,60
Al	Rem.

Physical characteristics		
Density	$\frac{\text{Kg}}{\text{dm}^3}$	2,83
Modulus of elasticity	MPa	70.000
Coefficient of thermal expansion	$\frac{\times 10^{-6}}{^\circ\text{C}}$	22,9
Thermal conductivity at 20°C	$\frac{\text{W}}{\text{mk}}$	T3:151 T8:171
Electrical resistivity at 20°C	$\frac{\Omega \text{ mm}^2}{\text{m}}$	T3:0,038 T8:0,043

Mechanical properties					
	Temper	Rm MPa	Rp 0,2 MPa	A%	HBW
Extruded	T6	310	230	8	110
	T6*	360	245	16	120
Drawn	T3	320	270	10	90
	T3*	370	280	15	115
	T8	370	270	8	115
	T8*	400	310	16	125

* Typical Eural Characteristics