2011 by EURAL

Color code
brown

PRODUCTION PROGRAM

Unit: in	●	■	▬	⬢
Drawn	0.197 - 3	0.394 - 2.559	Thick. 0.472 - 2.165	0.394 - 2.5
Extruded	1.181 - 10	1.181 - 6.5	Thick. 1.181 - 5	-

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

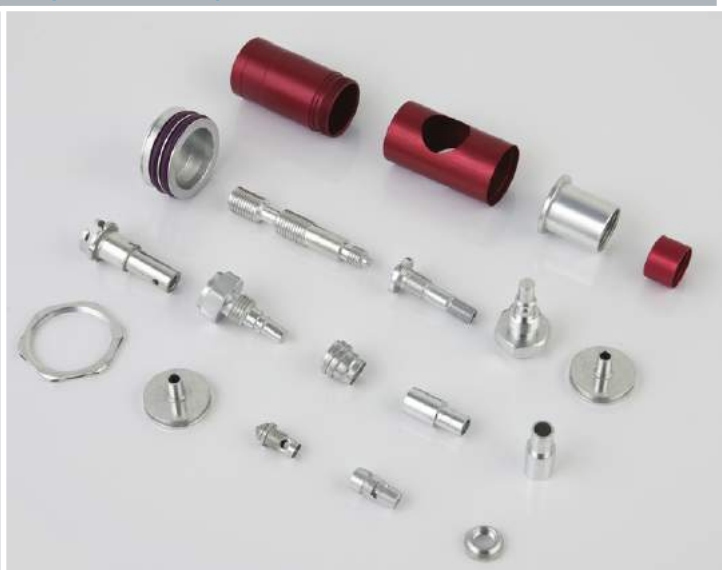
PRESENTATION

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 colors *.

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

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

Samples of finished products made of Eural bars



Properties	T3/T6	T8
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	■■	■■

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	
Pb	0.20 - 0.40
Bi	0.20 - 0.60
Others	Each 0.05 Total 0.15
Al	Remainder

Physical properties		
Density	lb / in ^{3}	0.1022
Modulus of elasticity	ksi	10.152
Coeffi cient of thermal expansion	x10^{-6} / °F	12.7
Thermal conductivity at 68°F	Btu / ft h °F	T3: 86.7 T8: 98.2
Typical electrical resistivity at 68°F	Ω mm^2 / m	T3: 0.038 T8: 0.043

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Minimum mechanical properties

	Temper	Diam. in	UTS ksi	YTS ksi	A%	HBW Typical
Drawn	T3	≤ 1.5	46.4	39.2	10	90
	T3	1.5 < D ≤ 2	43.5	36.3	10	90
	T3	2 < D ≤ 3	40.6	30.5	10	90
	T8	≤ 3	53.7	39.2	8	115
Extruded	T6	≤ 3	45.0	33.4	8	110
	T6	3 < D ≤ 8	42.8	28.3	6	110

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