



Colour code  
EU red

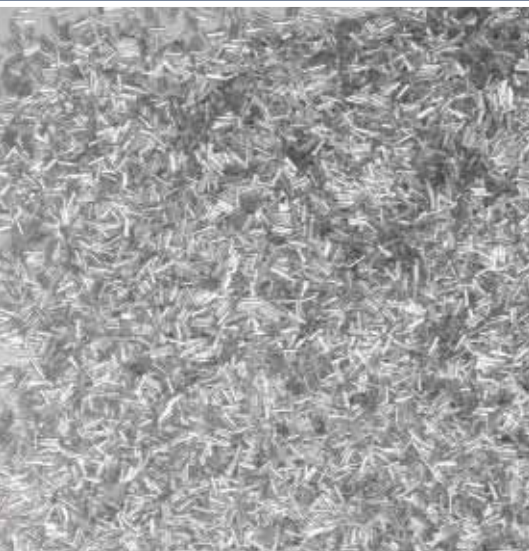


Colour code  
USA brown

## PRODUCTION PROGRAM

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

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 colours \*.

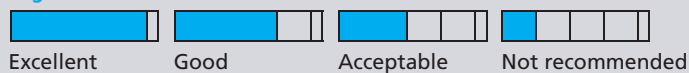
The alloy 2011, having a content of lead (Pb) registered 0,2 ÷ 0,4 will not be conform for the production of final parts compliant to RoHS directive starting from 18/05/2021 and subject to specific authorization for REACH conformity (Pb ≤ 0,1%). EURAL suggests as alternative compliant to the above mentioned directives the alloy 2033 LEAD FREE.

**Main applications:** screws, bolts, nuts, threaded parts.

\* To get an optimal surface finishing of anodized pieces, we suggest use 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	Good	Good
Resistance to marine corrosion	Acceptable	Acceptable
MIG-TIG weldability	Good	Good
At resistance weldability	Good	Good
Brazing weldability	Acceptable	Acceptable
Plastic formability when cold	Good	Good
Plastic formability when hot	Good	Good

### Legend



## Samples of finished products made of Eural bars



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	Kg/dm <sup>3</sup> 2,83
Modulus of elasticity	MPa 70.000
Coefficient of thermal expansion	x10 <sup>-6</sup> /°C 22,9
Thermal conductivity at 20°C	W/mk T3: 151 T8: 172
Typical electrical resistivity at 20°C	Ω mm <sup>2</sup> /m T3: 0.043 T8: 0.038

Minimum mechanical properties					
Temper	Diam. mm	Rm	Rp0,2	HBW	
		MPa	MPa	A%	Typical
Drawn	T3	≤ 40	320 270	10	90
	T3	40 < D ≤ 50	300 250	10	90
	T3	50 < D ≤ 80	280 210	10	90
Extruded	T8	≤ 80	370 270	8	115
	T6	≤ 75	310 230	8	110
	T6	75 < D ≤ 200	295 195	6	110