



## Conforming to ELV (2000/53/EC) and RoHS III (2018/740/EU)

Alloy EN AW 2033 conforming to RoHS III is developed specifically for machining applications. It is renowned for its excellent machining characteristics and short chips. **Alloy EN AW 2033 does not contain Sn and Pb.** Modified alloy is a replacement for 2030/2007 or 2011 alloy and retains all the high quality properties and is a technical equivalent to the original 2030/2007 or 2011 alloy.



### Chemical Composition EN AW 2033

Alloy	Si	Fe	Cu	Mn	Mg	Zn	Ti	Pb*	Bi	Sn*	Each	Total
EN AW 2033	0.10 1.20	max. 0.70	2.20 2.70	0.40 1.00	0.20 0.60	max. 0.50	max. 0.15	max. 0.05	0.05- 0.80	max. 0.05	max. 0.05	max. 0.15

\*No intentional Pb and Sn additions.

### Mechanical properties EN AW 2033

#### Cold Drawn

Temper	Dimension		Rm min.		Rp <sub>0.2</sub> min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
<b>T3</b>	2.5 to 30	0.098 to 1.181	370	54	240	35	8	8	100
<b>T3</b>	30 to 76.20	1.181 to 3	340	50	220	32	8	8	100
<b>T8</b>	2.5 to 76.20	0.098 to 3	370	54	270	39.2	8	8	105

#### Extruded

Temper	Dimension		Rm min.		Rp <sub>0.2</sub> min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
<b>T4, T4510, T4511</b>	20 to 80	0.788 to 3.149	370	54	220	32	8	8	90
<b>T4, T4510, T4511</b>	80 to 180	3.149 to 7.087	340	50	220	32	8	8	90
<b>T6, T6510, T6511</b>	20 to 80	0.788 to 3.149	370	54	250	36	8	8	105
<b>T6, T6510, T6511</b>	80 to 180	3.149 to 7.087	340	50	220	32	8	8	105

### Comparative Characteristics EN AW 2033

Temper	Corrosion resistance		Cold workability	Anodizing Response	Brazeability	Weldability	
	General	Stress				Gas	Arc
<b>T3, T4, T4510, T4511,</b>	●	●●	●●●	●●●	●	●	●●●
<b>T8, T6, T6510, T6511</b>	●	●●●	●●●	●●●	●	●	●●

Rating: ●●●● - Excellent | ●●● - Good | ●● - Fair | ● - Poor



### Physical Properties EN AW 2033

Density (g/cm <sup>3</sup> )	2.79
Modulus of elasticity (MPa)	73100
Thermal conductivity (W/m K)	208
Coefficient of thermal expansion (25-100°) 10 <sup>-6</sup> /K	22.4-23.1
Electrical conductivity at 20°C (MS/m)	18-23 (31%-40% IACS)