

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

Alloy EN AW 6023 is developed specifically for electronics and automotive industry for machining applications and it is renowned for good machining characteristics and excellent anodizing response. Used for automotive brake components, hydraulic valve blocks and many other applications. EN AW 6023 alloy is replacement for 6012 and 6262, where lead is substituted with tin and bismuth and retains all the technological properties of the original alloys.



Chemical Composition EN AW 6023 - EN 573-3

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Each	Total	Other	Additional
EN AW 6023	0.60	max.	0.20	0.20	0.40	max.	max.	max.	max.	max.	max.	Sn=0.6-1.2	
EN 573-3	1.40	0.50	0.50	0.60	0.90	0.05	0.05	0.05	0.05	0.05	0.15	Bi=0.3-0.8	

Mechanical properties EN AW 6023

Cold Drawn

Temper	Dimension		Rm min.		Rp _{0.2} min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T6, T8	2.5 to 76.2	0.098 to 3	345	50	315	46	4	5	80

Extruded

Temper	Dimension		Rm min.		Rp _{0.2} min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T6 T6510 T6511	20 to 150	0.788 to 5.906	320	46	270	39	10	10	80
T6 T6510 T6511	150 to 180	5.906 to 7.087	260	38	200	29	8	10	80

Comparative Characteristics EN AW 6023

Temper	Corrosion resistance		Cold workability	Anodizing Response	Brazeability	Weldability	
	General	Stress				Gas	Arc
T6	●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●	●●●●
T6, T6510, T6511	●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●	●●●●

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



Physical Properties EN AW 6023

Density (g/cm ³)	2.74
Modulus of elasticity (MPa)	69940
Thermal conductivity (W/m K)	217
Coefficient of thermal expansion (25-100°) 10 ⁻⁶ /K	22.4-23.1
Electrical conductivity at 20°C (MS/m)	20-27 (34.5-46.6% IACS)