

Conforming to ELV (2000/53/EC)

Alloy EN AW 6012 is developed specifically for machining applications, conform to ELV and renowned for good machining characteristics and excellent anodizing response. Lead content less than 1 % and no other prohibited elements is used for automotive brake components, hydraulic valve blocks and many other applications. EN AW 6012 alloy is a direct replacement for 6012-classic, retains all the technological properties of the original 6012.



Chemical Composition EN AW 6012 conforming to ELV

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Each	Total	Other
EN AW 6012	0.6	max.	max.	0.40	0.60	max.	max.	max.	0.40	max.	max.	Bi=max.0.70
EN 573-3	1.0	0.50	0.1.0	1.00	1.20	0.30	0.30	0.20	1.00	0.05	0.15	

Mechanical Properties EN AW 6012 conforming to ELV

Cold Drawn EN 754-2

Temper	Dimension		Rm min.		Rp _{0.2} min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T6	2.5 to 76.2	0.098 to 3	310	45	260	38	8	8	105

Extruded EN 755-2

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	310	45	260	38	8	10	105
T6 T6510 T6511	150 to 180	5.906 to 7.087	260	38	200	29	8	10	105

Comparative Characteristics EN AW 6012 conforming to ELV

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 6012 conforming to ELV

Density (g/cm ³)	2.74
Modulus of elasticity (MPa)	70110
Thermal conductivity (W/m K)	172
Coefficient of thermal expansion (25-100°) 10 ⁻⁶ /K	23.4
Electrical conductivity at 20°C (MS/m)	26 (45% IACS)