

# Aluminium alloy EN AW 2011 - RoHS/AA 2011 - RoHS

## Conforming to RoHS II (2011/65/EU) and ELV (2000/53/EC)

Alloy AA 2011 conforming to RoHS is developed specifically for electronics industry. It is renowned for its excellent machining characteristics and short chips. In the electronics industry the environment friendly and technologically advanced AA 2011 RoHS alloy is a direct replacement for 2011 alloy. Lead content of less than 0.4 % but it retain all the high quality properties and is a technical equivalent to the original 2011 alloy.



### Chemical Composition EN AW 2011 - RoHS/AA 2011 - RoHS

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Each	Total	Other	Additional
EN AW 2011 RoHS/ AA 2011 RoHS EN 573-3	max. 0.40	max. 0.70	5.0 6.0	max. 0.05	max. 0.05	max. 0.05	max. 0.30	max. 0.05	0.20- 0.40	max. 0.05	max. 0.15	Bi= 0.2-0.6	

### Mechanical properties EN AW 2011 - RoHS/AA 2011 - RoHS

#### Cold Drawn EN 754-2

Temper	Dimension		Rm min.		Rp <sub>0.2</sub> min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T3	2,5 to 40	0.098 to 1.575	320	45	270	40	10	10	90
	40 to 50	1.575 to 1.969	300	43	250	36	10	12	90
	50 to 76.2	1.969 to 3	280	40	210	30	10	14	90
T8	2,5 to 76.20	0.098 to 3	370	54	270	40	8	12	115

#### Extruded EN 755-2

Temper	Dimension		Rm min.		Rp <sub>0.2</sub> min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T4	20 to 180	0.788 to 7.087	275	40	125	18	14	14	80
T6	20 to 75	0.788 to 2.953	310	45	230	33	8	10	90
	75 to 180	2.953 to 7.087	295	43	195	28	6	10	90

### Comparative Characteristics EN AW 2011 - RoHS/AA 2011 - RoHS

Temper	Corrosion resistance		Cold workability	Anodizing Response	Brazeability	Weldability	
	General	Stress				Gas	Arc
T3	●	●	●●●●	●●	●	●	●●●
T8	●	●●●	●●●●	●●	●	●	●
T4	●	●	●●●●	●●	●	●	●●●
T6	●	●●●	●●●●	●●	●	●	●

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



### Physical Properties EN AW 2011 - RoHS/AA 2011 - RoHS

Density (g/cm <sup>3</sup> )	2.82
Modulus of elasticity (MPa)	70300
Thermal conductivity (W/m K)	152-173
Coefficient of thermal expansion (25-100°) 10 <sup>-6</sup> /K	23.1
Electrical conductivity at 20°C (MS/m)	22.6-26.1 (39%-45% IACS)