



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

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



Chemical Composition AA 2011 LF

Alloy	Si	Fe	Cu	Mn	Mg	Zn	Ti	Pb	Bi	Sn	Each	Total
AA 2011 LF	max. 0.4	max. 0.70	5.0 6.0	max. 0.05	max. 0.05	max. 0.30	max. 0.05	max. 0.05	0.50-1.50	max. 0.05	max. 0.05	max. 0.15

Mechanical properties AA 2011 LF

Cold Drawn

Temper	Dimension		Rm min.		Rp _{0.2} min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T3	5 to 40	0.197 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	5 to 76.20	0.197 to 3	370	54	270	40	8	12	110

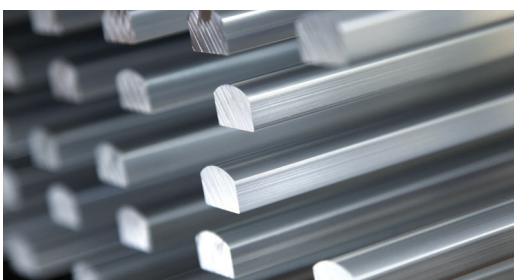
Extruded

Temper	Dimension		Rm min.		Rp _{0.2} 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 AA 2011 LF

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

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



Physical Properties AA 2011 LF

Density (g/cm ³)	2.84
Modulus of elasticity (MPa)	74100
Thermal conductivity (W/m K)	200-210
Coefficient of thermal expansion (25-100°) 10 ⁻⁶ /K	22.3-23.0
Electrical conductivity at 20°C (MS/m)	19-23 (32.7%-39.6% IACS)