

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

Alloy AA 2041 is the most free-machining of common aluminium alloy. It is renowned for its excellent machining characteristics and short chips. AA 2041 alloy is a direct replacement for 2011 and retains all the technological properties of the original alloys.



### Chemical Composition AA 2041

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb*	Each	Total	Other	Additional
AA 2041	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	max. 0.05	max. 0.05	max. 0.15	Sn=0.5-0.7 Bi=0.5-0.7	

\*No intentional Pb and Sn additions.

### Mechanical properties AA 2041

#### Cold Drawn

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	110

#### Extruded

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 AA 2041

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 2041

Density (g/cm <sup>3</sup> )	2.83
Modulus of elasticity (MPa)	74630
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)