

# Aluminium Alloy AA 2033 Modified (D73) Conforming to ELV(2000/53/EC) and RoHS III (2018/740/EU)



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Alloy AA2033 Modified conforming to RoHS III is developed specifically for machining applications. It is renowned for its excellent machining characteristics and short chips. Alloy 2033 modified does **not contain Sn and Pb**. Modified alloy is a replacement for 2030/2007 or 2011 alloy and retains all the high quality properties and is a technical equivalent to the original 2030/2007 or 2011 alloy.

## Chemical Composition AA2033 Modified:

Alloy	Si	Fe	Cu	Mn	Mg	Zn	Cr	Ti	Pb	Bi	Sn	Each	Total
AA 2033 Modified	0,10 1,20	max. 0,70	2,20 2,70	0,40 1,00	0,20 0,60	max. 0,50	max. 0,15	max. 0,15	max 0,05	0,05- 0,90	max 0,05	max. 0,05	max. 0,15

## Mechanical properties AA2033 Modified:

Temper	Dimension		Rm min.		Rp0.2 min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T3	5,55 to 30	0.218 to 1.181	370	54	240	35	8	8	100
T3	30 to 76.20	1.181 to 3	340	50	220	32	8	8	100
T8	5,55 to 76.20	0.218 to 3	370	54	270	39.2	8	8	105
Extruded									
Temper	Dimension		Rm min.		Rp0.2 min.		A	A (2")	HB min.
	mm	inch (")	MPa	ksi	MPa	ksi	% min.		
T4, T4510, T4511	20 to 80	0.788 to 3,149	370	54	220	32	8	8	90
T4, T4510, T4511	80 to 180	3,149 to 7.087	340	50	220	32	8	8	90
T6, T6510, T6511	20 to 80	0.788 to 3,149	370	54	250	36	8	8	105
T6, T6510, T6511	80 to 180	3,149 to 7.087	340	50	220	32	8	8	105

## Comparative Characteristics AA2033 Modified:

Temper	Corrosion resistance		Cold workability	Anodizing Response	Brazeability	Weldability	
	General	Stress				Gas	Arc
T3, T4, T4510, T4511,	D	C	B	B	D	D	B
T8, T6, T6510, T6511	D	B	B	B	D	D	C

Rating: A=Excellent, B=Good, C=Fair, D=Poor

## Physical Properties AA2033 Modified:

Density (g/cm <sup>3</sup> )	2,79
Modulus of elasticity (MPa)	74600
Thermal conductivity (W/m K)	150-175
Coefficient of thermal expansion (20-100°) 10 <sup>-6</sup> /K	23,1
Electrical resistivity (MS/m)	18-23 (31%-40% IACS)