ANODALL EXTRUSION
estrusione e lavorazione alluminio

ALLOY EN AW – 6082

CHEMICAL CARACTERISTICS	Numerical designation	EN AW – 6082
	Chemical description	EN AW – AlSi1MgMn
	Aluminium Association	AA 6082

CHEMICAL COMPOSITION % in weight, reference UNI EN 573-3	Silicon Si	0,70 – 1,30
	Iron Fe	0,50 max
	Copper Cu	0,10 max
	Manganese Mn	0,40 – 1,00
	Magnesium Mg	0,60 – 1,20
	Chromium Cr	0,25 max
	Zinc Zn	0,20 max
	Titanium Ti	0,10 max
	Others	Each 0,05
		Total 0,15
	Aluminium	REST

		Open profile	Open profile	Tubular profile	Tubular profile
MECHANICAL CHARACTERISTICS reference UNI EN 755-2*	Hardening	T5	T6	T5	T6
	Thickness (mm)	≤ 5	≤ 5	≤ 5	≤ 5
	Rm (MPa) min.	270	290	270	290
	Rp0,2 (MPa) min.	230	250	230	250
	A % min.	8	8	8	8
	A50 mm % min.	6	6	6	6
	HBW (Brinnel) - typical	90	95	90	95
*These values are intended for extruded profiles					

PHYSICAL CHARACTERISTICS	Density (kg/dm³)	2,7
	Melting point (°C)	615/655
	Coefficient of Poisson	0,33
	Modulus of elasticity (MPa)	69.000
	Modulus of tangential elasticity (MPa)	26.000
	Coeff. of linear thermal expansion from 20-100°C (10^{-6} K^{-1})	23,2
	Thermal conductibility at 20°C (W/cm x K)	2,09
	Specific Heat from 0 to 100°C [j/kg x °K]	897

TECHNICOLOGICAL CHARACTERISTICS	Hardening	T4	T5	T6	T64	T66
	Attitude to anodization	E	E	E	E	E
	Resistance to corrosion	G	G	G	G	G
	Cold plastic workability	G	S	S	G	U
	Machinability	U	S	G	S	G
	Weldability	G	G	G	G	G
	Mouldability	E	E	E	E	E
U = unsatisfying, S = satisfying, G = good, E = excellent						

Direct extrusion alloy with high mechanical characteristics. It's typically used for buildings and automotive for the extrusion of complex profiles with a structural function.
Products extruded with this alloy are suited for different surface treatments like powder coating and anodizing, this last one with respectable quality esthetical results.