AIROLDI METALLI SPA

product sheet

ALLOY 6063

TUBES

EXTRUDED

COLOUR CODE

Aluminium Alloy 6063 (EN AW 6063 AlMg0,7Si)

According to EU directives: 2000/53/CE (ELV) - 2011/65/CE (RoHS II)

- Aluminium-magnesium-silicium alloy.
- It is principally used in space-frame and sub-frame construction, anti-crash autos structures, buildings and pneumatics.
- Good anodization.

		THICKNESS				
		≤ 25	≤ 10	10 ≤ 25	≤ 10	10 ≤ 25
Physical Properties		**T4**	**T5**	**T5**	**T6**	**T6**
Mechanical Properties						
Ultimate tensile strenght Rm[N/mm²]	minimal	130	175	160	215	195
Yield strenght Rp 0,2	minimal	65	130	110	170	160
Elongation A_5	minimal	14	8	7	8	8
Hardness Brinnel HB (information only)	minimal	50	65	65	75	75
Physical properties						
Density [kg/dm³]		2,70	2,70	2,70	2,70	2,70
Module of elasticity [Gpa]		69	69	69	69	69
Electrical conductivity at 20 °C [m/Ω-mm²]		33	33	33	33	33
Coefficient of thermal expansion [10⁻⁶/K]		23,2	23,2	23,2	23,2	23,2
Thermal conductivity [w/m.K]		201	201	201	201	201
Melting point range °C		615 ÷ 655	615 ÷ 655	615 ÷ 655	615 ÷ 655	615 ÷ 655
Processing Characteristics						
Machinability		++	++	++	++	+++
Dimensional Stability		+++	+++	+++	+++	+++
Erodability		++	++	++	++	+++
Weldability		++++	++++	++++	++++	++++
Polishability		+++	+++	++++	+++	++++
Anodizing Decorative		+++++	+++++	+++++	+++++	+++++
Anodizing Hard		+++++	+++++	+++++	+++++	+++++
Corrosion resistance (weather)		+++++	+++++	+++++	+++++	+++++
Corrosion resistance (seaweather)		++++	++++	++++	++++	++++

Legend - Processing Characteristics

Excellent +++++ | Good ++++ | Accettable +++ | Mediocre ++ | Inadequate + | Not suitable -

CHEMICAL COMPOSITION

DENOMINATION	Si	Fe	Mn	Mg	Cu	Zn	Cr	Ti	Ni	Pb	Bi	Sn	IMPURITY		ALUMINIUM
6063	0,20-0,60	0,35	0,10	0,45-0,90	0,10	0,10	0,10	0,10					0,05	0,15	remainder

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