PRO-LAM S.R.L. ALLUMINIO

1° PART*

TECHNICAL DATA SHEET OF ALLOY 6060 AND ALUMINIUM PROFILE.

6060 T5 9006/1 EX UNI 3569

Corrispondence to normative laws

USA	Italy	Germany	-	France	Great Britain	Switzerland
A.A.	UNI	DIN	W.N.	Afnor	B.S.	S.N.
6060	9006/1 EX UNI 3569	AlMgSiO,5	3.3206	6060	6060	AlMgSi0.5

Chemical composition

Specification number	-								Impurity	
A.A.	Si	Fe	Cu	Mn	Mg	Cr	Zn	Zr	Ti	Each	Total
6060	0.3 0.6	0.1 0.3	0.10	0.10	0.35 0.6	0.05	0.15	-	0.10	0.05	0.15

Mechanical characteristics

Specification number A.A.	Phisical condition according to UNI 3565	Phisical condition according to UNI 8278	Tensile strength at break Rm (N/mm)	Yield point Rp 0.2 N/mm²	Stretching to break point %	Hardness HB
6060	R	O	140 max	80 max	20	40 max
	TaN	T1	120	50	16	35
	TaA	T5	185	145	11	55
	TA	T6	205	165	10	60

PHYSICAL PROPERTIES:		
VOLUMIC MASS:		≈2,70 kg/dm³
INFERIOR MELTING POINT:		≈605 °C
SPECIFIC HEAT:		≈0,92 J/(g · K)
THERMAL STATE CONDUCTIVITY 20°C:	**STATE Ω**	≈2,09 W/(cm · K)
	STATE T6	≈1,75 W/(cm · K)
THERMICAL LINEAR EXPANSION COEFFICIENT:		from 20° to 100° 23 · 10^{-6} · K^{-1}
		from 20° to 200° 24 · 10^{-6} · K^{-1}
		from 20° to 300° 25 · 10^{-6} · K^{-1}
RESISTIVITY AT 20°C	**STATE Ω**	≈3,14 μO · cm
	STATE T6	≈3,25 μO · cm
ELASTIC MODULUS:		≈66000 N/mm²

HEAT TREATMENTS	
T5 (standard)	Temper at the press following to artificial ageing from 170 to 185°C for 6 - 10 h to regime.

TECHNOLOGICAL PROPRETIES		
PROCESSING AND BEHAVIOUR	**SPECIFICATION**	**APPRAISAL**
cold plastic forming	for states O,T1,T4	good
	for states T5,T6,T8 T10	scarce
weldability	with arc in inert gas (MIG e TIG) and with added metal in alloy Al-Si o Al-Mg	good
	electrical resistance	good
machinability	for states O T1,T4	redoubt
	for states T5,T6,T8 T10	from sufficient to good
polishibility	for states O T1,T4	sufficient
	for states T5,T6,T8 T10	good
corrosion proofness in environment	marine and industrial	good
	urban and rural	good
	internal and dry	optimal
aptitude at anodizing	as protection and decorative use	optimal