



## Chemical composition

%	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Pb	Others	Al
Minimum			5,00						0,20	0,20		
Maximum	0,40	0,70,	6,00				0,30		0,60	0,60		rest

## International Equivalences

Europe	USA	Spain	France	Germany	G.B.	Italy	Sweden	Switzerland	Japan
E.N. 573	A.A.	U.N.E.	AFNOR	D.I.N.	B.S.	U.N.I.	S.I.S.	V.S.M.	J.I.S.
EN AW 2011	2011	38.322 L-3192	A-U5PbBi	AlCuBiPb 3.1655	FC1	6362 9002/5	4335	AlCu6PbBi	A 2011

## Mechanical properties

**Standard: EN 755-2**

**Alloy: EN AW-1050A [Al 99.5]**

### Extruded bar

Treatment state	Measurements mm		R <sub>m</sub> Mpa		R <sub>p0,2</sub> MPa		A %	A <sub>50 mm</sub> %	Hardness HB
	D <sup>1)</sup>	S <sup>2)</sup>	mín.	máx.	mín.	máx.	mín	mín.	
T4	≤ 200	≤ 60	275	–	20	–	14	12	90
T6 <sup>5)</sup>	≤ 75	≤ 60	310	–	230	–	8	6	110
	75 < D ≤ 200	–	295	–	195	–	6	–	110

1) D = Diameter of circular section bars.

2) S = Distance between faces for square-section and hexagonal bars, thickness for rectangular section bars.

5) The characteristics can be obtained by means of cooling in a press.

## Physical properties

Modulus of elasticity N/mm <sup>2</sup>	Specific weight g/cm <sup>3</sup>	Melting temperature °C	Linear expansion coefficient 1/10 <sup>6</sup> K	Thermal conductivity W/mK	Electrical resistivity at 20°C - μΩ cm	Electrical conductivity% IACS	Dissolution potential V
72.500	2,84	540-650	23	T3-152	T3-4,4	T3-39	

## Technological suitabilities

Welding		Natural behaviour		Anodized		Mechanization	State:	T3	T3 T4 T6 T8
Under flame	M	In a rural environment	R	For protection	B	Chip fragmentation		MB	MB
At the arc under argon gas	R	In an industrial environment	R	Decorative	M	Surface gloss		B	B
Owing to electrical resistance	R	In a marine environment	M	Hard anodized	R				
Brazed	M	In sea water	M						

## Thermal treatments

Forging temperature interval: 400°-480°C.  
 Total annealing: 420°C with long-term cooling up to 250°C.  
 Annealing against acidity: 340°C

## Products

Bars, profiles, tubes, flat bars.

## Observations and applications

Well-machined alloy because of their corrosion, protection anodizing is recommended. This alloy is easy to machine and you can work at high speeds with all kinds of parts under turning such as rapid-connection fittings, sleeves, flanges, washers, screws, pulleys, pistons, cylinders, tyres, plugs, bushings, threaded rods etc.