



# ALUMINIUMS Alloys Aluminium - Zinc 7022

## Chemical composition

%	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Ti+Zr	Others
Minimum			0,50	0,10	2,60	0,10	4,30			
Maximum	0,50	0,50	1,00	0,40	3,70	0,30	5,20		0,20	0,05

## 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 7022				AlMgCu0,5 3.4345		9007/5			

## Mechanical properties of sheets Standard: EN 485-2 Aluminium EN AW-7022 [Al Zn5Mg3Cu]

Treatment state	Nominal thickness mm		R <sub>m</sub> MPa		R <sub>p0,2</sub> MPa		Min. elongation %		Bending radius		Hardness HBS <sup>1)</sup>
	Greater than	up to	min.	max.	min.	max.	A <sub>50mm</sub>	A	180°	90°	
T6	6,0	12,5	450		370		8				133
T6, T651	12,5	25,0	450		370			8			133
	25,0	50,0	450		370			7			133
	50,0	100,0	430		370			5			127
	100,0	200,0	410		370			3			121

For new applications of this alloy, which entails certain properties like corrosion-proofing, toughness, fatigue resistance, you are strongly recommended to consult us with a view to making a more thorough selection of the material.

1) Solely for information.

## Mechanical properties Standard: EN 755-2 Alloy: EN AW-7022 [Al Zn5Mg3Cu]

Extruded bar								
Treatment state	Measurements mm		R <sub>m</sub> MPa		R <sub>p0,2</sub> MPa		A %	A <sub>50 mm</sub> %
	D <sup>1)</sup>	S <sup>2)</sup>	min.	max.	min.	max.	min	min.
T6, T6510, T6511 <sup>5)</sup>	≤ 80	≤ 80	490	–	420	–	7	5
	80 < D ≤ 200	80 < S ≤ 200	470	–	400	–	7	–

### Extruded tube

Treatment state	Measurements mm e <sup>3)</sup>	R <sub>m</sub> MPa		R <sub>p0,2</sub> MPa		A %	A <sub>50 mm</sub> %
		min.	max. min.	max.	min	min.	
T6, T6510, T6511 <sup>5)</sup>	≤ 30	490	–	420	–	7	5

### Extruded profile

Treatment state	Measurements mm e <sup>3)</sup>	R <sub>m</sub> MPa		R <sub>p0,2</sub> MPa		A %	A <sub>50 mm</sub> %
		min.	max. min. max.	max.	min	min.	
T6, T6510, T6511 <sup>5)</sup>	≤ 30	490	–	420	–	7	5

1) D = Diameter of circular section bars.

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

3) e = Wall thickness.

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
71.000	2,78	485-640	23,6	13-16		17-23	

## Technological suitabilities

Welding		Natural behaviour		Anodized		Mechanization	State T651
Under flame	<b>M</b>	In a rural environment	<b>B</b>	For protection	<b>B</b>	Chip fragmentation	<b>B</b>
At the arc under argon gas	<b>R</b>	In an industrial environment	<b>R</b>	Decorative	<b>M</b>	Surface gloss	<b>B</b>
Owing to electrical resistance	<b>B</b>	In a marine environment	<b>M</b>	Hard anodized	<b>B</b>		
Brazed	<b>M</b>	In sea water	<b>M</b>				

## Thermal treatments

## Products

## Observations and applications

Plates for moulds.

Alloy endowed with excellent machinability as well as good dimensional stability and high mechanical characteristics.  
It is used to construct injection moulds for plastics, bottles, recipients, footwear etc.