



Continuous casting aluminium alloys.

Standard: **UNI EN 1676 and 1706**

Alloy group: **Al Zn Mg**

Alloy designation: **EN AB and AC 71000 - Al Zn 5 Mg**

Replaces:

CHEMICAL COMPOSITION %

ALLOY		ELEMENTS												
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Sn	Ti	Individual impurities	Global impurities
EN AB 71000	min			0,15		0,45	0,15		4,5			0,12		
	max	0,25	0,7	0,35	0,4	0,7	0,6	0,05	6	0,05	0,05	0,2	0,05	0,15
No Name	min													
	max													

MECHANICAL FEATURES DETECTED FROM SEPARATE CASTING TEST SPECIMENS

Casting process	Temper designations	Rm Tensile strenght		Sp 0,2 Yield strenght		A Elongation		HB Brinell hardness		
		EN 1706	N/mm2	EN 1706	N/mm2	EN 1706	%	EN 1706	HBW	HB
		Mpa		Mpa		%		HBW	HB	
SAND (as cast) Annealed	T1	190	200 - 240	120	130 - 160	4	5 - 7	60	70 - 80	
SHELL (as cast) Annealed	T1	210	220 - 280	130	140 - 180	4	6 - 12	65	70 - 80	
PRESSURE DIE (as cast)		-	-	-	-	-	-	-	-	

PHYSICAL PROPERTIES (indicative values subject to the UNI EN Standards)

DENSITY	2.81 Kg/dm ³
MELTING RANGE or MELTING POINT	570 °C 620 °C
SPECIFIC HEAT (at 100)°	0.93 J/Gk
LINEAR SHRINKAGE IN SAND PROCESS	0,013
LINEAR SHRINKAGE IN SHELL PROCESS	0,013
LINEAR SHRINKAGE IN HIGH PRESSURE	
ELECTRIC CONDUCTIVITY	19 - 21 MS/m
MODULUS OF ELASTICITY	7200 Kg/mm ²

THERMAL CONDUCTIVITY at 20°C	130 - 140 W/(m K)
LINEAR THERMAL EXPANSION from 20 t 100°C	-
LINEAR THERMAL EXPANSION from 20 t 200°C	23.0-10-6°C
LINEAR THERMAL EXPANSION from 20 t 300°C	-
SUGGESTED MAXIMUM TEMPERATURE	780 °C
SUGGESTED CASTING TEMPERATURE	
°in sand	620 - 650 °C
°in shell	620 - 650 °C
°in pressure die	-

TECHNOLOGICAL FEATURES, QUALITATIVE INDICATIONS

STRENGTH AT ELEVATED TEMPERATURE(to 200°C)	LOW
GENERAL RESISTANCE TO CORROSION	GOOD
MACHINABILITY	EXCELLENT
CASTABILITY	SUFFICIENT
POLISHING	GOOD

RESISTANCE TO HOT TEARING	MEDIUM
PRESSURE TIGHTNESS	MEDIUM
WELDABILITY	LOW
DECORATIVE ANODISING	GOOD
PROTECTIVE ANODISING	

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