



Continuous casting aluminium alloys.

Standard: **UNI EN 1676 and 1706**

Alloy group: **Al Zn Si Mg**

Alloy designation: **EN AB and AC 71100 - Al Zn10Si8Mg**

Replaces: **GALZN10SI8MG**

CHEMICAL COMPOSITION %

ALLOY		ELEMENTS											Individual impurities	Global impurities
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Sn	Ti		
EN AB 71100	min	7,5				0,25			9,0					
	max	9,5	0,27	0,08	0,15	0,50	-	-	10,5	-	-	0,15	0,05	0,15
GALZN10SI8MG	min	8,5				0,30			9,00					
	max	9,3	0,15	0,01	0,05	0,50	-	-	10,00	-	-	0,10	0,05	0,15

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	GALZN10SI8MG	EN 1706	GALZN10SI8MG	EN 1706	GALZN10SI8MG	EN 1706	GALZN10SI8MG
		Mpa	N/mm2	Mpa	N/mm2	%	%	HBW	HB
SAND (as cast) Annealed	T1	210	220-250	190	200-230	1	1-2	90	90-100
SHELL (as cast) Annealed	T1	260	280-320	210	220-250	1	3-6	100	105-120
PRESSURE DIE (as cast)	T1		300 - 350		230 - 280		2 - 4		110 - 120

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

DENSITY	2.85 Kg/dm ³	THERMAL CONDUCTIVITY at 20°C	120 - 130 W/(m K)
MELTING RANGE or MELTING POINT	550 °C 650 °C	LINEAR THERMAL EXPANSION from 20 t 100°C	
SPECIFIC HEAT (at 100)°	0.23 cal/g °C	LINEAR THERMAL EXPANSION from 20 t 200°C	21x10-6/°C
LINEAR SHRINKAGE IN SAND PROCESS	1.0 - 1.2%	LINEAR THERMAL EXPANSION from 20 t 300°C	
LINEAR SHRINKAGE IN SHELL PROCESS	0.8 - 1.0 %	SUGGESTED MAXIMUM TEMPERATURE	800 °C
LINEAR SHRINKAGE IN HIGH PRESSURE	0.5 - 0.8 %	SUGGESTED CASTING TEMPERATURE	
ELECTRIC CONDUCTIVITY	17 - 20 MS/m	°in sand	700-740 °C
MODULUS OF ELASTICITY	7400 Kg/mm ²	°in shell	700-730 °C
		°in pressure die	660-700 °C

TECHNOLOGICAL FEATURES, QUALITATIVE INDICATIONS

STRENGTH AT ELEVATED TEMPERATURE(to 200°C)	CORRECT	RESISTANCE TO HOT TEARING	EXCELLENT
GENERAL RESISTANCE TO CORROSION	MEDIOCRE	PRESSURE TIGHTNESS	GOOD
MACHINABILITY	EXCELLENT	WELDABILITY	GOOD
CASTABILITY	EXCELLENT	DECORATIVE ANODISING	LOW
POLISHING	EXCELLENT	PROTECTIVE ANODISING	LOW

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