



Continuous casting aluminium alloys.

Standard: **UNI EN 1676 and 1706**

Alloy group: **Al Si 9 Cu**

Alloy designation: **EN AB and AC 46300 - Al Si 7 Cu 3 Mg**

Replaces:

CHEMICAL COMPOSITION %

ALLOY		ELEMENTS												
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Sn	Ti	Individual impurities	Global impurities
EN AB 46300	min	6,5		3,0	0,20	0,35								
	max	8,0	0,7	4,0	0,65	0,60	-	0,30	0,65	0,15	0,10	0,20	0,05	0,25
No UNI 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	HB
		Mpa		Mpa		%		HBW	HB
SAND (as cast) Annealed	-	-	-	-	-	-	-	-	-
SHELL (as cast) Annealed	F	180	180 - 230	100	100 - 170	1	1 - 2	80	70 - 85
PRESSURE DIE (as cast)									

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

DENSITY	2.73 Kg/dm³	THERMAL CONDUCTIVITY at 20°C	110 - 120 W/(m K)
MELTING RANGE or MELTING POINT	510 °C 610 °C	LINEAR THERMAL EXPANSION from 20 t 100°C	-
SPECIFIC HEAT (at 100)°	0.88 J/Gk	LINEAR THERMAL EXPANSION from 20 t 200°C	21.0-10-6°C
LINEAR SHRINKAGE IN SAND PROCESS		LINEAR THERMAL EXPANSION from 20 t 300°C	-
LINEAR SHRINKAGE IN SHELL PROCESS	0.6 - 0.9 %	SUGGESTED MAXIMUM TEMPERATURE	780 °C
LINEAR SHRINKAGE IN HIGH PRESSURE		SUGGESTED CASTING TEMPERATURE	
ELECTRIC CONDUCTIVITY	14 - 17 MS/m	°in sand	
MODULUS OF ELASTICITY	7400 Kg/mm²	°in shell	680 - 750 °C
		°in pressure die	-

TECHNOLOGICAL FEATURES, QUALITATIVE INDICATIONS

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

Address: Veliköy Sanayi Bölgesi 1. Kısım Osman Uzun Cad. No: 2/1 Çerkezköy / Tekirdağ / TURKEY
Email: info@bayrammetal.com.tr - **Phone:** +90 282 746 10 41 (Pbx) - **Web:** bayrammetal.com.tr