



### Continuous casting aluminium alloys.

Standard: **UNI EN 1676 and 1706**

Alloy group: **Al Si 10 Mg**

Alloy designation: **EN AB and AC 43300 Al Si 9 Mg**

Replaces:

#### CHEMICAL COMPOSITION %

ALLOY		ELEMENTS												Individual impurities	Global impurities
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Sn	Ti			
EN AB 43300	min	9,0				0,30									
	max	10,0	0,15	0,03	0,10	0,45	-	-	0,07	-	-	0,15	0,03	0,10	
	min	9,0				0,30									
	max	10,0	0,15	0,01	0,05	0,45	-	-	0,07	-	-	0,05	0,03	0,10	

#### 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		EN 1706		EN 1706		EN 1706		
		Mpa	N/mm2	Mpa	N/mm2	%	%	HBW	HB	
SAND (as cast) Hardened and Aged artif.	F		160 - 220		80 - 140		2 - 6		50 - 60	
	T6	230	250 - 300	190	200 - 270	2	2 - 5		80 - 110	75
SHELL (as cast) Hardened and Aged artif. Partially Aged	F		180 - 240		90 - 150		2 - 6		60 - 80	
	T6	290	260 - 340	210	200 - 280	4	4 - 7		85 - 115	90
	T64	250	260 - 340	180	200 - 280	6	4 - 7		85 - 115	80
PRESSURE DIE (as cast)	F									

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

DENSITY	2.65 Kg/dm <sup>3</sup>
MELTING RANGE or MELTING POINT	550 °C 600 °C
SPECIFIC HEAT (at 100)°	0.90 J/Gk
LINEAR SHRINKAGE IN SAND PROCESS	1.0 - 1.1 %
LINEAR SHRINKAGE IN SHELL PROCESS	0.7 - 1.0 %
LINEAR SHRINKAGE IN HIGH PRESSURE	04 - 06 %
ELECTRIC CONDUCTIVITY	20 - 26 MS/m
MODULUS OF ELASTICITY	7600 Kg/mm <sup>2</sup>

THERMAL CONDUCTIVITY at 20°C	150 - 180 W/(m K)
LINEAR THERMAL EXPANSION from 20 t 100°C	-
LINEAR THERMAL EXPANSION from 20 t 200°C	21.0-10-6/°C
LINEAR THERMAL EXPANSION from 20 t 300°C	-
SUGGESTED MAXIMUM TEMPERATURE	780 °C
SUGGESTED CASTING TEMPERATURE	
°in sand	680 - 750 °C
°in shell	680 - 730 °C
°in pressure die	-

#### TECHNOLOGICAL FEATURES, QUALITATIVE INDICATIONS

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

RESISTANCE TO HOT TEARING	SMALL
PRESSURE TIGHTNESS	GOOD
WELDABILITY	EXCELLENT
DECORATIVE ANODISING	LOW
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