



Continuous casting aluminium alloys.

Standard: **UNI EN 1676 and 1706**

Alloy group: **Al Si 9 Cu**

Alloy designation: **EN AB and AC 46500 - Al Si 9 Cu 3 (Fe)(Zn)**

Replaces: **LM 24**

CHEMICAL COMPOSITION %

ALLOY		ELEMENTS												
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Sn	Ti	Individual impurities	Global impurities
EN AB 46500	min	8,0	0,60	2,00		0,15								
	max	11,0	1,20	4,00	0,55	0,55	0,15	0,55	3,00	0,35	0,25	0,20	0,05	0,25
LM 24	min	7,5		3,00										
	max	9,5	1,3	4,00	0,55	0,30	0,15	0,55	3,00	0,35	0,25	0,20	0,05	0,25

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	BS 1490:88	EN 1706	BS 1490:88	EN 1706	BS 1490:88	EN 1706	BS 1490:88
		Mpa	N/mm2	Mpa	N/mm2	%	%	HBW	HB
SAND (as cast)	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
SHELL (as cast)		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
PRESSURE DIE (as cast)	F	240	180 - 320	140	100 - 150	1	1 - 3	80	80 - 100

PHYSICAL PROPERTIES (indicative values subject to the UNI EN and ex BS 1490:88 Standards)

DENSITY	2.79 Kg/dm ³	THERMAL CONDUCTIVITY at 20°C	110 - 120 W/(m K)
MELTING RANGE or MELTING POINT	520 °C 580 °C	LINEAR THERMAL EXPANSION from 20 t 100°C	-
SPECIFIC HEAT (at 100)°		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		SUGGESTED MAXIMUM TEMPERATURE	750 °C
LINEAR SHRINKAGE IN HIGH PRESSURE	0,013	SUGGESTED CASTING TEMPERATURE	
ELECTRIC CONDUCTIVITY	13 - 17 MS/m	°in sand	
MODULUS OF ELASTICITY	7200 Kg/mm ²	°in shell	
		°in pressure die	640 - 710 °C

TECHNOLOGICAL FEATURES, QUALITATIVE INDICATIONS

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