DATA SHEET

Standard: SS-EN 1676 and SS-EN 1706

Alloy group: AlSi10Mg

Alloy designation: EN AB and EN AC 43000

CHEMICAL COMPOSITION % - EN 1676

Alloy		Elements												
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Sn	Ti	Each	Total
EN AB-43000	min	9,0				0,25								
	max	11,0	0,40	*0,03	0,45	0,45	-	0,05	0,10	0,05	0,05	0,15	0,05	0,15

MECHANICAL PROPERTIES FROM SEPARATELY CAST TEST PIECES - EN 1706

Casting process	Temper designation	Tensile strength Rm MPa min.	Yield strength Rp0,2 MPa min.	Elongation A % min.	Brinell hardness HBW min.
Sand	F	150	80	2	50
	T6	220	180	1	75
Permanent mould	F	180	90	2,5	55
	T6 / T64	260 / 240	220 / 200	1 / 2	90 / 80
High pressure die casting					

MECHANICAL AND OTHER PROPERTIES - EN 1706

Fluidity	A	Ability to be polished	D
Resistance to hot tearing	A	Strength at room temperature	B
Pressure tightness	B	Strength at elevated temperature at 200 °C	C
Machinability as cast	B/C	Ductility (Shock resistance)	C
Machinability after heat treatment	B	Linear thermal expansion 10^{-6}/K 293K373 K	21
Resistance to corrosion	C	Electrical conductivity MS/m	18 to 25
Decorative anodizing	E	Thermal conductivity W/(m k)	140 to 170
Ability to be welded	A	Fatigue resistance MPa	80 to 110

A: Excellent B: Good C: Fair D: Poor E: Not advisable F: Unsuitable

*If corrosion resistance is less important or not required, a maximum Cu content of 0,08 % is allowed.

STENA ALUMINIUM