Aluminium alloy EN AB-44400

Chemical designation: EN AB-AlSi9
Swedish standard: Type 4255, [1], [2]

Chemical composition[1]:

	Min %	Max %
Si	8,0	11,0
Fe	-	0,55
Cu	-	0,08
Mn	-	0,50
Mg	-	0,10
Cr	-	-
Ni	-	0,05
Zn	-	0,15
Pb	-	0,05
Sn	-	0,05
Ti	-	0,15

Others each max 0,05%
and total max 0,15%

General description of properties:
Near-eutectic alloy with excellent castability, but likely to adhere to the tool. Good resistance to hot tearing and high resistance to chemical attack.

Suitable applications:
For castings that must have good toughness and resistance to corrosion.

Heat treatment:
Not age hardenable

Casting characteristics[2]:

Solidification range, °C, about	Casting temperature °C, about	Fluidity	Resistance to hot tearing	Shrinkage %, about	Pressure tightness
600-550	650-700	Excellent	Excellent	0,5-0,8	Good

Mechanical properties of separately untreated cast test bars[2]:

Tensile strength, R_m, MPa, min.	Proof stress $R_{p0,2}$, MPa, min.	Elongation A_{50}, %, min.	Brinell hardness HBS, min.
220	120	2	55

Mechanical and physical properties[2]:

Density kg/dm³	Strength	Machinability	Weldability	Resistance to corrosion
2,65	Satisfact.	Satisfact.	Poor	Satisfact.

Decorative anodizing	Ability to be polished	Linear thermal expansion 293-373°K, $°K^{-1}$	Electrical conductivity MS/m	Thermal conductivity W/m°K
Not recom.	Poor	21 x 10^{-6}	16 – 22	130 - 150

STENA ALUMINIUM

[1]: SS-EN 1676:2010
[2]: SS-EN 1706:2010