

Aluminium alloy EN AB-43400

Chemical designation:

EN AB- AlSi10Mg(Fe)

Swedish standard:

Type -, [1], [2]

Chemical composition¹:

	Min %	Max %
Si	9,0	11,0
Fe	0,45	0,9
Cu	-	0,08
Mn	-	0,55
Mg	0,25	0,50
Cr	-	-
Ni	-	0,15
Zn	-	0,15
Pb	-	0,15
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 properties and good resistance to hot tearing. Good machinability and high resistance to chemical attack.

Suitable applications:

For complicated, thin-wall, pressure-tight, high-strength corrosion-resistant castings subjected to fatigue loading.

Heat treatment:

Not usually age hardened

Casting characteristics²:

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 bars²:

Tensile strength, R_m , MPa, min.	Proof stress $R_{p0,2}$, MPa, min.	Elongation A_{50} , %, min.	Brinell hardness HBS, min.
240	140	1	70

Mechanical and physical properties²:

Density kg/dm^3	Strength	Machinability	Weldability	Resistance to corrosion
2,65	Good	Good	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	21×10^{-6}	16 – 21	130 - 150