

Aluminium alloy EN AB-44300

Chemical designation:

EN AB- AlSi12(Fe)

Swedish standard:

Type 4263, [1], [2]

Chemical composition¹:

	Min %	Max %
Si	10,5	13,5
Fe	0,45	0,9
Cu	-	0,08
Mn	-	0,55
Mg	-	- ¹⁾
Cr	-	- ¹⁾
Ni	-	- ¹⁾
Zn	-	0,15
Pb	-	- ¹⁾
Sn	-	- ¹⁾
Ti	-	0,15

¹⁾ Each of these max 0,05%
and total max 0,25%

General description of properties:

Eutectic alloy with excellent castability properties, excellent fluidity and high resistance to hot tearing. Good machinability and high resistance to chemical attack.

Suitable applications:

For complicated, thin-wall, pressure-tight, corrosion-resistant castings subjected to fatigue loading. Particularly suitable for difficult thin-wall castings with good elongation properties.

Heat treatment:

Not age hardenable

Casting characteristics²:

Solidification range, °C, about	Casting temperature °C, about	Fluidity	Resistance to hot tearing	Shrinkage %, about	Pressure tightness
580-570	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	130	1	60

Mechanical and physical properties²:

Density kg/dm^3	Strength	Machinability	Weldability	Resistance to corrosion
2,65	Good	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	20×10^{-6}	16 – 22	130 - 160