

Aluminium alloy EN AB-44500

Chemical designation:

EN AB-Al Si12(Fe)(b)

Swedish standard:

[1], [2]

Chemical composition¹:

	Min %	Max %
Si	10,5	13,5
Fe	0,45	0,90
Cu	-	0,18
Mn	-	0,55
Mg	-	0,40
Cr	-	-
Ni	-	-
Zn	-	0,30
Pb	-	-
Sn	-	-
Ti	-	0,15

Others each max 0,05%
and total max 0,25%

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 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	Satisfact.

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	60

Mechanical and physical properties²:

Density kg/dm ³	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 ² K
Not recom.	Poor	21 x 10 ⁻⁶	16 - 22	130 - 160