

Aluminium alloy EN AB-46100

Chemical designation:

EN AB- AlSi11Cu2(Fe)

Swedish standard:

Type -, [1], [2]

Chemical composition¹:

	Min %	Max %
Si	10,0	12,0
Fe	0,45	1,0
Cu	1,5	2,5
Mn	-	0,55
Mg	-	0,30
Cr	-	0,15
Ni	-	0,45
Zn	-	1,7
Pb	-	0,25
Sn	-	0,15
Ti	-	0,20

Others each max 0,05%

and total max 0,25%

General description of properties:

Alloy with very good castability, excellent fluidity and good machinability.

Suitable applications:

For wide range of applications. Particularly suitable for thin-wall castings.

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
580-530	650-700	Excellent	Good	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	80

Mechanical and physical properties²:

Density kg/dm^3	Strength	Machinability	Weldability	Resistance to corrosion
2,75	Good	Satisfact.	Poor	Poor
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.	Satisfact.	20×10^{-6}	14 – 18	120 - 130