

# Aluminium alloy EN AB-44500

Chemical designation: EN AB-Al Si12(Fe)(b)  
 Swedish standard: [1], [2]

## Chemical composition<sup>1</sup>:

	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 characteristics<sup>2</sup>:

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 bars<sup>2</sup>:

Tensile strength, R <sub>m</sub> , MPa, min.	Proof stress R <sub>p0,2</sub> , MPa, min.	Elongation A <sub>50</sub> , %, min.	Brinell hardness HBS, min.
240	140	1	60

## Mechanical and physical properties<sup>2</sup>:

Density kg/dm <sup>3</sup>	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 <sup>-1</sup>	Electrical conductivity MS/m	Thermal conductivity W/m°K
Not recom.	Poor	21 x 10 <sup>-6</sup>	16 - 22	130 - 160