



**Chemical designation: AlSi6Cu2.5**

**Designation: RheoGreen**

# ALUMINIUM ALLOY RHEOGREEN

## RHEOGREEN

Weight reduction is key in modern designs. The alloy is developed to replace alloys as DIN226/46000/ADC12. It gives designers the ability to design very complex shapes with thin walls in combination with a low-cost alloy. The alloy is based on 100% recycled aluminium, with a max of 6,5% Silicon, to lower the carbon footprint in your product.

Typical applications: pump housings, ECU covers and AC parts.

### CHEMICAL COMPOSITION:

Element	Min %	Max %
Si	2,0	5,5
Fe	-	1,0
Cu	1,5	2,1
Mn	-	0,6
Mg	0,15	0,6
Cr	-	0,15
Ni	-	0,55
Zn	-	1,2
Pb	-	0,094
Sn	-	0,15
Ti	-	0,2

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

### GENERAL DESCRIPTION

An alloy developed for rheocasting, having good castability properties in semi solid state. Usually it is in range of 30 40 % solid state. Reasonably good mechanical properties. Key properties are good mould filling abilities and high thermal conductivity.

### SUITABLE APPLICATIONS

An alloy intended only for the rheocasting method. Excellent for complex and thin walled castings, but also useful in applications with bigger wall thicknesses in combination with lower demands in mechanical properties.

### HEAT TREATMENT:

The alloy can be artificially aged or precipitation hardened, if the porosity in the casting are kept low.

### MECHANICAL PROPERTIES:

Tensile strength $R_m$ , MPa.	Yield strength $R_{p0,2}$ , MPa.	Elongation A %.	Brinell hardness HBS, min.	Thermal conductivity W/m <sup>2</sup> K
250	135	2,50	75	150 155