

Certificate

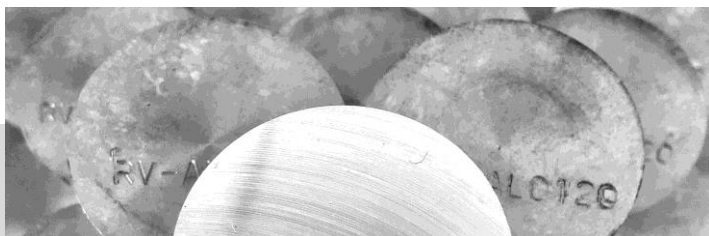
Certificate of Analysis

Reference Material AL 01/21
Aluminium Alloy Al Si7Mg(Cu)

Analyte	Certified value	Uncertainty
	Mass fraction in %	
Si	7,07	± 0,17
Fe	0,157	± 0,009
Cu	0,49	± 0,05
Mn	0,089	± 0,007
Mg	0,365	± 0,029
Cr	0,0017	± 0,0005
Ni	0,0044	± 0,0011
Zn	0,0119	± 0,0022
Ti	0,076	± 0,009

Analyte	Certified value	Uncertainty
	Mass fraction in %	
Ca	< 0,0005	
Ga	0,0104	± 0,0012
Li	< 0,0002	
Na	< 0,0002	
P	0,0009	± 0,0006
Pb	< 0,002	
Sn	< 0,002	
Sr	0,036	± 0,004
V	0,0079	± 0,0009

Date of issue: July 7, 2021



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Description

The base material for this Aluminium reference material has been taken from horizontal continuous casting ingots (approx. 50 x 70 mm). All ingots are taken from one lot. The ingots were turned to approx. 50 mm and cut into pieces of approx. 30 mm height. The elements Si, Fe, Cu, Mn, Mg, Cr, Zn, Ti, Ga, Sr and V have been tested for homogeneity according to ISO 13528:2015.

This reference material was certified in an interlaboratory test of 15 laboratories. The values given in this certificate are taken from the evaluation of the interlaboratory test.

The uncertainties were estimated at a 95 % confidence level, showing both the contribution of homogeneity and the uncertainties of the analytical methods used. The uncertainty values were calculated from the reproducibility standard deviations of the ILT with a coverage factor $k = 2$.

All values are valid only for a ring zone between 2 and 20 mm from the outer edge.

Recommended use

This reference material is intended for the verification of analytical methods, typically for S-OES, or for the calibration of analytical instruments.

Instructions for use

Before use, the surface of the material should be prepared by milling or turning on a lathe. Analysis should only be performed on material from the ring zone described above.

Storage information

This reference material should be stored in a dry and clean environment at room temperature.

Methods used for characterization

Spark emission spectrometry.

Disclaimer

We inspect and test to the best of our knowledge and belief and assume no further liability for the accuracy of the inspection and test.

Contact

For more information see www.metallogie.de/ringversuche/

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