

Certificate

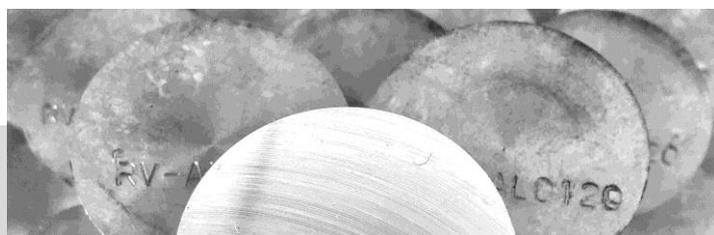
Certificate of Analysis

Reference Material PA 01/21 Primary Alumina

Analyte	Certified value	Uncertainty
	Mass fraction in %	
Na ₂ O	0,37	± 0,05
SiO ₂	0,009	± 0,003
Fe ₂ O ₃	0,0055	± 0,0019
ZnO	0,0068	± 0,0011
CaO	0,036	± 0,005
TiO ₂	0,0013	± 0,0009
P ₂ O ₅	< 0,001	

Analyte	Certified value	Uncertainty
	Mass fraction in %	
MnO	< 0,001	
V ₂ O ₅	< 0,002	
Ga ₂ O ₃	0,0072	± 0,0009
C	0,06	± 0,05
S	< 0,05	
α -Al ₂ O ₃	2,3	± 1,4
γ -Al(OH) ₃	0,6	± 0,4

Date of issue: May 31, 2021



Reference material PA 01/21

Description

The base material for this primary alumina reference material has been taken directly from the feedstock of an aluminium smelter. This is process material which can be regarded as sufficiently homogeneous.

Grainsize D90: $147 \pm 17 \mu\text{m}$

This reference material was certified in an interlaboratory test of 19 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 $k = 2$.

The certified values are given as oxides on an equivalent weight basis and assume stoichiometry in the oxide form listed.

Recommended use

This reference material is intended for the verification of analytical methods such as XRF, XRD, ICP OES or calibration of analytical instruments.

Storage information

This reference material should be stored in a dry and clean environment at room temperature, e.g. storage in desiccator.

Methods used for characterization

XRF, XRD, combustion analysis and ICP-OES.

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/

META<L>LOGIE, c/o pdv-software GmbH
Im Schleeke 50, 38642 Goslar, Germany

E-Mail: ringversuch@metallogie.de