

Certificate

Certificate of Analysis

Reference Material 2201-PA Primary Alumina

Analyte	Certified value	Uncertainty
Mass fraction in %		
Na ₂ O	0,339	± 0,025
SiO ₂	0,011	± 0,005
Fe ₂ O ₃	0,0053	± 0,0021
ZnO	0,0073	± 0,0012
CaO	0,037	± 0,004
TiO ₂	0,0011	± 0,0008

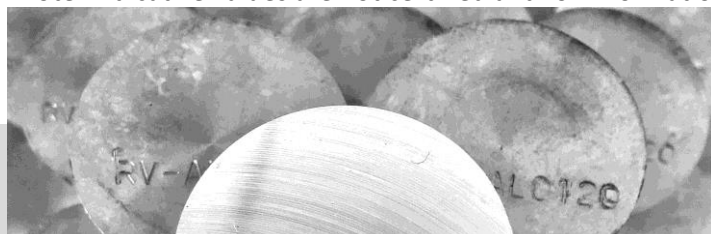
Analyte	Certified value	Uncertainty
Mass fraction in %		
P ₂ O ₅	< 0,001	
MnO	< 0,002	
V ₂ O ₅	0,0018	± 0,0010
Ga ₂ O ₃	0,0058	± 0,0006
α -Al ₂ O ₃	6,1	± 1,8
γ -Al(OH) ₃	< 1,5	

Indicative values:

Analyte	value	Uncertainty
Mass fraction in %		
C	0,05	
S	0,06	

Date of issue: August 31, 2022

Note: indicative values are not certified and for information only



Reference material 2201-PA

Description

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

Grainsize D90: $137 \pm 16 \mu\text{m}$

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 $k = 2$.

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 and combustion analysis.

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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