

CERTIFICATE OF ANALYSIS

CERTIFIED REFERENCE MATERIAL

№ SH8/4

FLUX

CERTIFIED VALUES AND UNCERTAINTIES (95% confidence level), %

Silicon oxide, SiO₂	1.77 ± 0.02	Phosphorus, P	0.013 ± 0.001
Calcium oxide, CaO	3.4 ± 0.2	Calcium fluoride, CaF₂	68.6 ± 0.2
Aluminium oxide, Al₂O₃	26.5 ± 0.1	Carbon, C	0.039 ± 0.002
Ferrum total, Fe t	0.147 ± 0.006	Calcium oxide total, CaO t	(52.7 ± 0.2)*
Sulphur, S	0.013 ± 0.001		

*The values in parentheses are given for information only.

ADDITIONAL DATA:

Powder, less than 0.1mm.

Minimum weight of sample for analysis is 0.1g

Analytical methods used are given in Supplement.

Producer: The Institute for Certified Reference Materials, Yekaterinburg

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Supplied by: ICRM-Center Ltd, Moscow.

Storage and transporting conditions: It is prohibited to storage the CRM in moist and foggy indoor places and to transport it by sea or river ships.

It is hereby certified that the named CRM has been approved by the National Committee on Standards and Metrology and entered in the National Register of measuring devices which had passed official testing.

Director, ICRM-Center

Alexander V. Lipsky

ANALYTICAL METHODS USED

Silicon oxide, SiO₂	Photometry, as blue Si-Mo complex, reduction by ascorbic acid ICP-AES; AAS
Aluminium oxide, Al₂O₃	Complexometric titration Gravimetric benzoate ICP-AES; AAS
Ferrum total, Fe t	Photometric with sulphosalicylic acid, with O-phenanthroline AAS; ICP-AES
Sulphur, S	Titrimetric Iodometric Infrared-absorption
Phosphorus, P	Photometry, as blue Si-Mo complex, reduction by thiourea, by Fe(II)ions with hydroxylamine, by ascorbic acid with tartrated antimony Extraction-photometric, as blue P-Mo complex, reduction bystannous chloride
Calcium fluoride, CaF₂	Pyrohydrolysis Complexometric titration Potentiometric
Carbon, C	Coulometric Infrared-absorption