Elemental Microanalysis

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Certificate of Analysis
Part No. B2515
Carbon & Sulphur Pin Standard

Certificate Number 719C

% Carbon
Mean = 0.216
Standard Deviation = ± 0.003
Expanded Uncertainty = ± 0.006
(k=2, @ 95% confidence limit) (n=34)

%Sulphur
Mean = 0.0183
Standard Deviation = ± 0.0003
Expanded Uncertainty = ± 0.0010
(k=2, @ 95% confidence limit) (n=32)

Method of analysis is ASTM E 1019-18 and ARI 033
Primary (NMI)/ISO17034 Reference Standards employed:

NIST SRM	293, 19h, 129c, 178, 133b, 337a, 106b
JSS	030-8
NCS	NS11011, HC11111
ALPHA	AR883-216B

Notes

The intended use of this reference standard is for the calibration and verification of induction combustion Carbon/Sulphur analysis by infra-red detection as described by ASTM E1019. The mean analytical values were derived by data sets showing traceability to the above-mentioned primary reference standards and reported in mass fraction. The minimum and typical size for testing was 1g (1 pin) per ASTM E1019. The precision values represent the mean value and estimated uncertainty derived from the data sets. Metrological traceability is to the SI derived unit of mass fraction expressed as percent. Refer to your test method for additional uncertainty information. When necessary, professional judgment is applied toward consideration of data and statistical information.

The material used in production of this standard was identified in accordance with ARI 032. The samples for analysis were selected in accordance with ARI 014. The above values relate only to the material used to produce this standard. This bottle contains 454g, 1g pins (nominal weight), to be used directly from the bottle with no preparation needed. While unable to determine a definite shelf life this reference should be reviewed 25 years after date of certification. Keep sealed and store under normal laboratory conditions.

Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event, shall Elemental Microanalysis Ltd be liable for incidental or consequential damages.

This Reference Material is traceable to the above-mentioned reference materials. For good laboratory practice, it is recommended that all standards be verified as fit for purpose prior to use.

Certified November 27, 2019

Elemental Microanalysis Limited