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Certificate of Analysis
Part No. B2513
Steel Pin Standard

Analytical Results

% Carbon	**% Sulfur**
Value = 0.0193	Value = 0.057
Expanded Uncertainty = ±0.0021	Expanded Uncertainty =± 0.0013
Method &Detection: Combustion	Method &Detection: Combustion
k ≈ 2 (95% confidence)	k ≈ 2(95% confidence)

Methods Employed:

JCGM 100:2008; Evaluation of Measurement Data – Guide to the Expression of Uncertainty in Measurement; (GUM 1995 with Minor Corrections), Joint Committee for Guides in Metrology (JCGM) (2008); available at https://www.bipm.org/utils/common/documents/jcgm/JCGM_100_2008_E.pdf (accessed February 2025)

JCGM 101:2008; Evaluation of Measurement Data – Supplement 1 to the Guide for the Expression of Uncertainty in Measurement; Propagation Distributions Using a Monte Carlo Method; Joint Committee for guides in Metrology (JCGM) (2008); available at https://www.bipm.org/utils/common/documents/jcgm/JCGM_100_2008.pdf (accessed February 2025).

**The analytical results above are provided by an accredited reference material manufacturer with a current certification in ISO 17025 and 17034.*

The intended use of this RM is for the verification and calibration of combustion for the determination of carbon and sulfur.

The minimum sample size to perform this intended use is no less than 1 pin.

The Period of Validity for this RM is 20 years from the date of certification provided the RM is handled and stored in accordance with the instructions given in this certificate.

This bottle contains 454 g of pins of nominal mass 1.0 g to be used per the test method you follow. Keep sealed tightly and store under normal laboratory conditions.

Refer to your test methods and or manufacturer manual for expanded uncertainties, repeatability/reproducibility factors.

For good laboratory practice, we recommend that all reference materials be verified as fit for purpose prior to use. 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.

Certified on the 24th October 2025

Elemental Microanalysis Ltd