

Elemental Microanalysis Ltd 1 Hameldown Road Okehampton EX20 1UB United Kingdom Telephone: 01837 54446 Fax: 01837 54544 Web: www.elementalmicroanalysis.com

Certificate of Analysis Part No. B2514 Steel Pin Standard

RM Doc Number: 240507

Page **1** of **1**

Analytical Results

% Carbon

Value = 0.0585Expanded Uncertainty = 0.0041Method & Detection = Combustion/IR n = 60 $k \approx 2 (95\% confidence)$

% Sulfur

Value = 0.0191Expanded Uncertainty = 0.0017Method & Detection = Combustion/IR n = 60 $k \approx (95\% \text{ confidence})$

Primary Reference Standards Used:

NIST SRM 123c, 14g, 2171, 2167, 895, 19h

JK 12a

Methods Employed:

ASTM E1019 – Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel, Iron, Nickel, and Cobalt Alloys by Various Combustion and Inert Gas Fusion Techniques

The intended use of this Reference Material (RM) is for the verification and calibration of induction furnace combustion and other appropriate analysis methods for the determination of carbon and sulfur.

The minimum sample size to perform this intended use is dependent upon the test method and instrumentation used. It is recommended that no less than 1 pin of RM material be used for destructive test methods.

The Period of Validity for this RM is 20 years after opening, if handling and storage instructions are followed and should be reviewed 20 years after the date below.

This bottle contains 454g of 1.0g nominal steel pins 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 7th of January 2025

Elemental Microanalysis Ltd

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