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Certificate of Analysis Part No. B2424 Steel Pin Standard

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Analytical Results	
% Oxygen	% Nitrogen
Mean = 0.028	Mean = 0.146
Standard Deviation = ± 0.005	Standard Deviation = \pm 0.004
Expanded Uncertainty = ± 0.010	Expanded Uncertainty = ± 0.008
(k=2, @95% confidence, n=47)	(k=2, @95% confidence, n=43)
*NOTE: The addition of graphite powder was used for analysis. The black/brown colour of the pin is normal.	
Primary (NMI) Reference Materials Employed:	
NIST 109	0, 343a, 346a, 73c
NCS	HC11325
JSS	389-1
EURO	291-1, 231-2
Method of Analysis is ASTM E 1019-18	

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 Reference Material (RM) is to be a calibration or QC validation of Oxygen and Nitrogen on inert gas fusion analysers utilizing infrared and thermal conductivity detection as described in ASTM E1019.

The minimum sample size to perform this intended use is 1 pin (0.5g)

The Period of Validity for this RM is not able to be determined and should be reviewed 25 years after the date below.

This bottle contains 50g of 0.5g (nominal) 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.

28th of June 2023.

Elemental Microanalysis Ltd