

	Mean Value	Expanded Uncertainty k=2, @ 95%	ASTM Method(s)	Traceability
<b>µg/g Mercury</b>	<b>0.071</b>	<b>±0.004 µg/g</b>	<b>D6722</b>	<b>NIST:1632d, 2693, 2691, 2682c, 2685c, 2684c, 2683c, 2692c, 2709 SARM 20, CRM 7</b>
<b>µg/g Chlorine</b>	<b>(1645)</b>	<b>(±138)</b>	<b>D6721</b>	<b>NIST: 2692c, 2693, 2682c</b>
<b>% Sulphur</b>	<b>1.50</b>	<b>±0.03</b>	<b>D4239</b>	<b>NIST: 1632d NCS: FC28010e, FC28004f</b>
<b>Percent Ash</b>	<b>4.47</b>	<b>±0.04</b>	<b>D7582, D3174</b>	<b>Gravimetric consensus</b>
<b>% Carbon</b>	<b>79.18</b>	<b>±1.60</b>	<b>D5373</b>	<b>High Purity Organic Analytical Standards</b>
<b>% Hydrogen</b>	<b>5.23</b>	<b>±0.07</b>	<b>D5373</b>	<b>High Purity Organic Analytical Standards</b>
<b>% Nitrogen</b>	<b>(1.70)</b>	<b>(±0.19)</b>	<b>D5373</b>	<b>High Purity Organic Analytical Standards</b>

**NOTE: all are Dried Basis Values – () Indicates reference only values**

The intended use of this reference material is for the quality validation of Mercury, Chlorine, Sulphur, Ash, Carbon, Hydrogen, and Nitrogen in coal by ASTM or other valid test methods. The analytical values were derived by a consensus of analytical testing, and reported in mass fraction. The sample size used and minimum sample size is dependent upon your test method or instrument manufacturer recommendations. The precision value represents the expanded degree of uncertainty based on errors from analytical assay at a 95% confidence level (k=2), and may not fit within your testing capabilities. Formal testing procedures should be followed when using this standard; this includes using the reproducibility and repeatability factors of the method for establishing overall analytical uncertainty. When necessary, professional judgment is applied toward consideration of data and statistical information.

The material used in production of this reference standard was identified in accordance with ARI 041. The samples for round robin testing were selected in accordance with ARI 031. The above values relate only to the material used to produce this standard. The analytical samples were dried per the NMI used or corrected for moisture as per the test method.

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. The above values relate only to the material used to produce this standard. This certificate cannot be reproduced except in full.

This bottle contains 50g, minus 60 mesh (250 micron) coal powder. When kept stored and sealed properly this product has an indefinite shelf life. Once opened this certificate is valid for two years. This Reference Material (working reference standard) is traceable to the above-mentioned standards. For good laboratory practice, it is recommended that all standards be verified prior to use.

EXPIRATION DATE  
THIS RM IS VALID FOR TWO YEARS FROM THE DATE OF OPENING

Certified: 21<sup>st</sup> September 2017