

Analytical Results

% Oxygen

Value = 0.142

Expanded Uncertainty = 0.014

Method & Detection = Inert Gas Fusion/IR

n = 49

k = 2.0

% Nitrogen

Value = 0.0150

Expanded Uncertainty = 0.0047

Method and Detection = Inert Gas Fusion/TC

n = 48

K = 2.0

% Hydrogen

Value = 0.0036

Expanded Uncertainty = 0.0011

Method & Detection = Inert Gas Fusion/TC

n = 49

k = 2.0

Primary Reference Standards Used:

NIST SRM: 173c, 360b, 2454a

BCS: 357, 356

WHRM: TMa

Methods Employed:

ASTM E1409 – Standard Test Method for Determination of Oxygen and Nitrogen in Titanium and Titanium Alloys by Inert Gas Fusion

ASTM E1447 – Standard Test Method for Determination of Hydrogen in Reactive Metals and Reactive Metal Alloys by Inert Gas Fusion with Detection by Thermal Conductivity or Infrared Spectrometry

**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 for the verification and calibration of inert gas fusion and other appropriate analysis methods for the determination of oxygen, nitrogen, and hydrogen. It can also be used to validate value assignment of in-house reference materials.

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 material be used for destructive test methods.

The Period of Validity for this RM is 15 years after the date below.

This bottle contains 10g of 0.1g (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.

Certification Date: October 3, 2024

Elemental Microanalysis Ltd