



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Product Assurance Services, Inc.

328 State Street

St. Marys, PA 15857

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1164

Certificate Number


ANAB Approval

Certificate Valid: 12/15/2017-12/18/2019
Version No. 003 Issued: 12/15/2017



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Product Assurance Services, Inc.

328 State Street, St. Marys, PA 15857

Bart Nelson Phone: 814-781-7274

pasi@windstream.net www.productassurance.net

TESTING

Valid to: December 18, 2019

Certificate Number: AT-1164

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Tensile Testing (Test Method)	ASTM E8 MPIF Std. 10	Sintered and Wrought Products	Tinius Olsen Super L 120 000 lbf Max. Modified Dog-Bone Tensile Bar Spring Loaded Tooling
Compression Testing (Test Method)	ASTM E9	Sintered and Wrought Products	Tinius Olsen Super L 120 000 lbf Max.
Hardness Testing (Test Method) Rockwell and Superficial Scales	ASTM E18* MPIF Std. 43*	Sintered and Wrought Products	Wilson Rockwell Hardness Tester Rockwell Scales A,B,C,E,F,G,H Superficial Scales T,N
Microhardness Testing - Knoop (Test Method)	ASTM E384 ASTM B933 MPIF Std. 51	Sintered and Wrought Products	Buehler Micromet Hardness Tester Knoop Scale 5 g to 500 g Range
Depth of Decarburization (Test Method)	ASTM E1077	Sintered and Wrought Products	Olympus PME Metallograph 50X, 100X, 200X, 400X, 1000X
Coating Thickness (Test Method)	ASTM B487	Sintered and Wrought Products	Olympus PME Metallograph 50X, 100X, 200X, 400X, 1000X
Case Depth (Test Method)	ASTM B934 MPIF Std. 52	Sintered and Wrought Products	Olympus PME Metallograph 50X, 100X, 200X, 400X, 1000X

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Green Strength (Test Method)	ASTM B312 MPIF Std. 15	Green P/M Compacts	IMADA Compression/Tension 100 lbf Max. Tinius Olsen Super L 1000 lbf Max. TRS Bar and K-Value Ring Spring Loaded Tooling
Case Depth (Test Method)	ASTM B931 ASTM B934 MPIF Std 52	Sintered and Wrought Products, Powder and Components	Olympus PME Metallograph Buehler Micromet Hardness tester Knoop Scale
Density (Test Method)	ASTM B962* MPIF Std. 42	Green and Sintered P/M Products	Wet Density Scale Capacity Range, 3100 g
Density, Oil Content, Interconnected Porosity (Test Method)	ASTM B963* MPIF Std. 57	Sintered P/M Products	Wet Density Scale Capacity Range, 3100 g
Transverse Rupture Strength (Test Method)	ASTM B528 MPIF Std. 41	Sintered P/M Products	Tinius Olsen Super L 120 000 lbf TRS Bar Fixture Micrometers 0.0001 in Accuracy TRS Bar Spring Loaded Tooling
Dimensional Change (Test Method)	ASTM B610 MPIF Std. 44	Sintered P/M Products	Tinius Olsen Super L 120 000 lbf Micrometers 0.0001 in Accuracy TRS Bar Spring Loaded Tooling
K-Value (Test Method)	MPIF Std. 55	Sintered P/M Products	Tinius Olsen Super L 120 000 lbf Micrometers/Calipers 0.001 in Accuracy K-Value Ring Spring Loaded Tooling

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Compressibility (Test Method)	ASTM B331 MPIF Std. 45	Sintered P/M Products	Tinius Olsen Super L 120 000 lbf Micrometers 0.0001 in Accuracy TRS Bar Spring Loaded Tooling
Apparent Density (Test Method)	ASTM B212* MPIF Std. 04* ASTM B417* MPIF Std. 28* ASTM B703* MPIF Std. 48*	Powders	Hall Flowmeter Funnel, Carney Funnel, Stand, Density Cup, Arnold Meter Balance 0.01 g Accuracy
Hall Flow Rate (Test Method)	ASTM B213* MPIF Std. 03*	Powders	Hall Flowmeter Funnel, Scales 0.01 g Accuracy, Stopwatch 0.1 s Accuracy
Sieve Analysis (Test Method)	ASTM B214 MPIF Std. 05	Powders	US Series Screens 40M,60M,80M,100M, 200M, 325M, Pan

Non-Destructive

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Guide for Magnetic Particle Examination (Guide) Recommended Practice – Magnetic Particle Method	ASTM E709* ASTM E1444* SNT-TC-1A-1996*	Sintered and Wrought Products and Components	Magnaflux AC/HWDC/FWDC 6 000 amps Max. Multiple Units
Guide for Resonant Ultrasound (Guide)	ASTM E2001*	Sintered and Wrought Products and Components	RUS Inspection Equipment 50 kHz Max. Range Multiple Units
Practice for Eddy-Current Sorting of Metals (Practice)	ASTM E566 ASTM E703	Sintered and Wrought Products and Components	Eddy Current Inspection 1.5 in Max. Diameter OD
Visual and Gauge Inspections, Practice for Quality Control Systems for Nondestructive Agencies (Practice) Practice for Agencies Performing Nondestructive Testing (Practice)	ASTM E1212* ASTM E543*	Sintered and Wrought Products and Components	Multiple Inspection and Gauging Locations

Note:

1. Methods identified by an asterisk (*) are also offered as field testing services.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1164.



Vice President

