New

ASTM INTERNATIONAL
Proficiency Testing Programs

Additive Manufacturing Powder Metallurgy

An all-new program to help improve measuring techniques in the powder metallurgy and additive manufacturing industries

Register today!
www.astm.org/AMPM | Annual Fee $1,400 | Cycles in April and October

One kilogram of metal powder will be used in the program for each test cycle, using standards:

ASTM B212 — Apparent Density of Free-Flowing Metal Powders Using Hall Flowmeter Funnel
ASTM B213 — Flow Rate of Metal Powders Using Hall Flowmeter Funnel
ASTM B214 — Sieve Analysis of Metal Powders
ASTM B215 — Sampling Metal Powders
ASTM B417 — Apparent Density of Non-Free-Flowing Metal Powders Using Carney Funnel
ASTM B527 — Tap Density of Metallic Powders and Compounds
ASTM B822 — Particle Size Distribution of Metal Powders and Related Compounds by Light Scattering
ASTM B855 — Volumetric Flow Rate of Metal Powders Using Arnold Meter and Hall Flowmeter Funnel
ASTM B923 — Metal Powder Skeletal Density by Helium or Nitrogen Pycnometry
ASTM B964 — Flow Rate of Metal Powders Using Carney Funnel
ASTM E1834 — Nickel Alloys by Graphite Furnace Atomic Absorption Spectrometry
ASTM E2465 — Ni-Base Alloys by Wavelength Dispersive X-Ray Fluorescence Spectrometry
ASTM E2594 — Nickel Alloys by Inductively Coupled Plasma Atomic Emission Spectrometry
ASTM E2823 — Nickel Alloys by Inductively Coupled Plasma Mass Spectrometry
ASTM E3047 — Nickel Alloys by Spark Atomic Emission Spectrometry

Plus ISO standards:
ISO 3923-1 Metal Powders, Funnel Method
ISO 4497 Metallic Powders, Dry Sieving
ISO 13320 Particle Size - Laser Diffraction
ISO 13322-1, ISO 13322-2 Particle Size - Image Analysis

About the Program
Use ASTM International standards to measure metal powder properties related to their physical properties. Those in the powder metallurgy, additive manufacturing, and other relevant industries will benefit from this new program supported by ASTM Committees B09 on Metal Powders and Metal Powder Products and F42 on Additive Manufacturing Technologies.

Samples and Testing
Conducted twice a year, this program provides a different commercial sample for each test cycle. Participating testing labs and R&D facilities will receive samples from metal powder manufacturers to measure and analyze apparent density, flow rate, particle size, and other properties.

This program includes:
- Stable and homogeneous test materials with physical and chemical properties similar to typical samples
- Electronic statistical summary report forms
- Test instructions for each cycle
- 24/7 access to custom PTP portal

For more information, contact
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Committee B09 Metal Powder and Metal Powder Products

The Committee was formed in 1944 and is currently responsible for 60 powder metallurgy standards. The scope of B09 includes the formulation of specifications and methods of test for metal powders and metal powder products. The 100 committee members are scientists and engineers from the powder metallurgy (PM) industry, as well as users of PM products, the laboratories engaged in testing them, and purveyors of instrumentation used in testing.

Technical Subcommittees:
- B09.01 Nomenclature and Technical Data
- B09.02 Base Metal Powders
- B09.03 Refractory Metal Powders
- B09.04 Bearings
- B09.05 Structural Parts
- B09.06 Cemented Carbides
- B09.11 Near Full Density Powder Metallurgy Materials
- B09.90 Executive
- B09.98 Long Range Planning and Awards

Committee F42 Additive Manufacturing

The Committee was formed in 2009 and is currently responsible for 21 standards in a variety of areas, with materials, processes, design, test methods, and terminology containing the bulk of the work product to date. The scope of F42 includes the promotion of knowledge, stimulation of research, and implementation of technology through the development of standards for additive manufacturing technologies. The roughly 750 committee members represent 26 countries, and are machine OEMs, equipment and material suppliers, design professionals, trade associations, professional societies, and government agencies from sectors including aerospace, medical, automotive, heavy machinery, pharma, and construction.

Technical Subcommittees:
- F42.01 Test Methods
- F42.04 Design
- F42.05 Materials and Processes
- F42.05.01 Metals
- F42.05.02 Polymers
- F42.05.03 Medical Applications
- F42.05.04 Aerospace Applications
- F42.06 Environment, Health, and Safety
- F42.07 Applications
- F42.90.05 Research and Innovation
- F42.91 Terminology

About ASTM International

ASTM International is a globally recognized leader in the development and delivery of voluntary consensus standards. Today, over 12,000 ASTM standards are used around the world to improve product quality, enhance health and safety, strengthen market access and trade, and build consumer confidence.

Distribution of Test Samples

Test samples are prepared and distributed for ASTM by LPW Technology Inc., Imperial, PA. Program registration fees include the cost of shipping the test samples to U.S. participants or, for international participants, to a third-party shipping agent located in the U.S.

Participation Requirements

Participation is on an annual fee basis and is open to all laboratories. Registration fees must be paid in advance to participate. Testing must be performed within the participant's laboratory facilities. A laboratory does not need to perform all the program tests to participate.

Why ASTM?

Improve and maintain a high level of performance in the use of ASTM methods and compare with other labs worldwide. Satisfy accreditation requirements and demonstrate your lab's testing capabilities. Review programs at any time with our PTP web portal.

Test information generated through the program is utilized by Committees B09 and F42 to determine if modifications to ASTM International methods or new methods are warranted and to analytically review program test results. (All data and related information generated from the program is coded to maintain lab confidentiality.)

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