



Standard Terminology of Powder Metallurgy¹

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1. Scope

1.1 This terminology standard includes definitions that are helpful in the interpretation and application of powder metallurgy terms.

2. Referenced Documents

2.1 ASTM Standards:

B331 Test Method for Compressibility of Metal Powders in Uniaxial Compaction

3. Terminology

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3.2 *Definitions: Powder*— Terms associated with production, characterization, use, and testing of metal powders.

3.2.1 General:

agglomerate, *n*—several particles adhering together.

metal powder, *n*—particles of elemental metals or alloys, normally less than 1000 μm (1 mm) in size.

particulate matter, *n*—see **powder**.

PM, *n*— the acronym for powder metallurgy.

powder, *n*—particles that are usually less than 1000 μm (1 mm) in size.

powder metallurgy, *n*—the production and utilization of metal powders.

3.2.8 Processes to Produce Powder

air classification, *n*—the separation of powder into particle size fractions by means of an air stream of controlled velocity.

atomization, *n*—the dispersion of a molten metal into particles by a rapidly moving gas or liquid stream or by mechanical means.

chemical deposition, *n*—the precipitation of one metal from a solution of its salts by the addition of another metal or reagent to the solution.

chemically precipitated metal powder, *n*—powder produced by the reduction of a metal from a solution of its salts either by the addition of another metal higher in the electromotive series or by other reducing agent.

classification, *n*—separation of a powder into fractions according to particle size.

disintegration, *n*—the reduction of massive material to powder.

gas classification, *n*—the separation of powder into particle size fractions by means of a gas stream of controlled velocity.

¹ This terminology is under the jurisdiction of ASTM Committee B09 on Metal Powders and Metal Powder Products and is the direct responsibility of Subcommittee B09.01 on Nomenclature and Technical Data.

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