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Standard Terminology Relating to Sieves, Sieving Methods and Screening Media[1]

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INTRODUCTION

Particle size distribution analysis through the use of standard testing sieves has been a commonly adopted method of verifying compliance with desired process particle specifications for many decades. As an adjunct to that function, greater emphasis is being placed on inter- and intralaboratory correlation of all particle measurement systems, testing sieves included.

To ensure a better understanding of the comparison of testing results from sieve analysis-based particle measurement systems, terminology common to the process must be documented and defined so that both the recipient and generator of the data are in full agreement as to the meaning of the data. Every effort has been made to ensure accuracy, precision, and clarity for the terms included in this terminology. For Committee E29, this is an on-going process with new terms being developed for future inclusion. Suggestions and comments for additions, corrections, and revisions are welcomed.

1. Scope

1.1 This terminology covers terms used in the description and procedure of analysis of the size of particulate materials through sieve analysis with standard testing sieves. The terms relate directly to the equipment used in the analysis, the physical forms of the material to be sieved may take on before, during, or after analysis, and selected descriptive data reduction and analysis formats.

1.2 Committee E29 on Particle Size Measurement feels that it is essential to include terms and definitions explicit to the scope, regardless of whether the terms appear in existing ASTM standards. Terms that are in common usage and appear in common-language dictionaries are generally not included.

2. Referenced Documents

2.1 *ASTM Standards:* [2]

ASTM STP 447B Manual on Testing Seiving Methods

2.2 *ISO Standard:*[3]

ISO 2395 Test Sieves and Test Sieving—Vocabulary.

3. Significance and Use

3.1 This terminology contains terms used in the description and procedure of analysis of the size of particulate materials through sieve analysis with standard testing sieves and is applicable to the work of many ASTM technical committees. For a composite listing of published ASTM standards using standard testing sieves, Refer to ASTM STP 447B.

3.2 While some of the terms appearing in this terminology may also be used in the description, procedure, and end products of production screening (either on a batch-fed or continuous basis), it is the intent of this terminology to present the definitions and usage of terms strictly in the context of sieve analysis using standard testing sieves.

4. Terminology

4.1 *Definitions:*

agglomerate, *n*—two or more particles adhering together.

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[1] This terminology is under the jurisdiction of ASTM Committee E29 on Particle and Spray Characterization and is the direct responsibility of Subcommittee E29.01 on Sieves, Sieving Methods, and Screening Media.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.