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Standard Terminology Relating to Sieves, Sieving Methods and Screening Media¹

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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.

Particle size analysis through the use of standard test sieves, and particle separation through the use of screening media, are commonly adopted methods of achieving desired process specifications related to particles. To ensure a better understanding of sizing and separation systems and processes and to ensure appropriate comparison of data, terminology common to the processes must be documented and defined.

For Subcommittee E29.01 on Sieves, Sieving Methods, and Screening Media, this is an on-going process of developing new related terms. Every effort has been made to ensure accuracy, precision, and clarity for the terms included. 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.

1.1 This terminology includes all those terms used in all of the standards under the jurisdiction of Subcommittee E29.01. Terms are defined that are related to the manufacture of standard test sieves and screening media, as well as terms related to the methods, analysis, procedures and equipment for sizing and separating particles.

1.2 Committee E29 on Particle and Spray Characterization 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 Sieving Methods*

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.