



Designation: D 1921 – 9601

An American National Standard

Standard Test Methods for Particle Size (Sieve Analysis) of Plastic Materials ¹

This standard is issued under the fixed designation D 1921; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 These test methods cover the measurement of the particle size of plastic materials in the powdered, granular, or pelleted forms in which they are commonly supplied. As these test methods utilize dry sieving, the lower limit of measurement is considered to be about 38 μm (No. 400 sieve). For smaller particle sizes, sedimentation test methods are recommended.

1.2 Two test methods are described:

1.2.1 *Test Method A*—This test method uses multiple sieves selected to span the particle size of the material. The mean particle diameter and distribution can be determined by this test method.

1.2.2 *Test Method B*—This test method is an abbreviated version of Test Method A conducted with a few specific sieves. This test method determines “percent passing” or “percent retained” on a given sieve. Test Method B is applicable to materials which do not have a normal particle size distribution such as pellets and cubes.

1.3 The values stated in ~~inch-pound~~ SI units ~~are to shall be regarded as~~ shall be regarded as ~~considered standard for dimensions of the~~ considered standard for dimensions of the ~~s wire cloth openings and the diameter of the wires used in the wire cloth. The values given stated in parentheses are given for information only.~~ inch-pound units shall be considered standard with regard to the sieve frames.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—There is no technically equivalent ISO standard.

2. Referenced Documents

2.1 ASTM Standards:

¹ These test methods are under the jurisdiction of ASTM Committee D20 on Plastics and are the direct responsibility of Subcommittee D20.70 on Analytic Methods (Section D20.70.01).

Current edition approved August 10, 1996; 2001. Published February 1997; October 2001. Originally published as D 1921 – 61 T. Last previous edition D 1921 – 896. This revision adds an ISO equivalency statement, includes Table 1 showing sieve size openings, and has wording changes in Sections 10, 12, 13, and 15.

*A Summary of Changes section appears at the end of this standard.