



Designation: E961–97 (Reapproved 2003) Designation: E 961 – 97 (Reapproved 2008)

Standard Specification for Blood Sedimentation Tube, Wintrobe, Glass, Reusable¹

This standard is issued under the fixed designation E 961; 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 This specification covers reusable blood sedimentation tubes suitable for determining sedimentation rates and the volume of packed red blood cells.

1.2 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

E 438 [Specification for Glasses in Laboratory Apparatus](#)

~~E671 Specification for Maximum Permissible Thermal Residual Stress in Annealed Glass Laboratory Apparatus~~² [Specification for Glasses in Laboratory Apparatus](#)

E 920 [Specification for Commercially Packaged Laboratory Apparatus](#)

E 921 [Specification for Export Packaged Laboratory Apparatus](#)

E 1133 [Practice for Performance Testing of Packaged Laboratory Apparatus for United States Government Procurements](#)

E 1157 [Specification for Sampling and Testing of Reusable Laboratory Glassware](#)

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *reusable*—Capable of being used again.

3.1.2 *Wintrobe*—The surname of the individual responsible for the design of the Wintrobe tube and the method of use.³

4. Classification

4.1 This specification covers a tube that is intended to be used until it is no longer considered a functional device for the purpose intended.

<https://standards.iteh.ai/catalog/standards/sist/cc88cbb4-9051-4219-8a3f-4e07eb5bdf89/astm-e961-972008>

5. Materials

5.1 *Glass*—The tubes made to this specification shall be fabricated from borosilicate glass, Type I, Class B, or soda-lime glass, Type II, in accordance with Specification E 438.

6. Dimensions and Graduations

6.1 *Dimensions*—The tube shall be made of tubing with an outside diameter (O.D.) of 7.0 to 8.0 mm with an inside diameter (I.D.) of 2.9 to 3.3 mm. The uniformity of the bore shall be ± 0.1 mm throughout the tube. The tube shall be 110 to 117 mm long and have a graduated scale of 105 ± 0.25 mm from the inside bottom of the tube. The tube shall be legibly marked with the manufacturer's or vendor's name or mark and possess a frosted area for marking purposes.

6.2 *Graduation Scale*—The tube shall be graduated 105 ± 0.25 mm in 1-mm divisions and numbered every 1 cm with two sets of numerals. One set of graduation numerals shall be from 0 to 9 cm down the left side of the graduation scale and the other set of g (20 to 25°C) for 15 min. Remove tube from the solution and thoroughly rinse in tap water followed by distilled water. Dry

¹ This specification is under the jurisdiction of ASTM Committee E41 on Laboratory Apparatus and is the direct responsibility of Subcommittee E41.01 on Glass Apparatus.

Current edition approved Nov. 10, 1997. Published February 1998. Originally published as E961–83. Last previous edition E961–93.

² This specification is under the jurisdiction of ASTM Committee E41 on Laboratory Apparatus and is the direct responsibility of Subcommittee E41.01 on Apparatus. Current edition approved Nov. 1, 2008. Published January 2009. Originally approved in 1983. Last previous edition approved in 2003 as E 961 – 97 (2003).

³ 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*, Vol 14.02: volume information, refer to the standard's Document Summary page on the ASTM website.

³ Wintrobe, Maxwell M., "Laboratory Evaluation of Erythrocytes," *Clinical Hematology*, Seventh Ed., 1974, pp. 109–134.