



Designation: **E734 – 80 (Reapproved 2010) E734 – 80 (Reapproved 2015)**

Standard Specification for Disposable Glass Blood Sample Capillary Tube (Microhematocrit)¹

This standard is issued under the fixed designation E734; 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 disposable glass blood sample capillary tubes for use in microhematocrit procedures.
- 1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

2. Referenced Documents

- 2.1 *ASTM Standards*:²
[E438 Specification for Glasses in Laboratory Apparatus](#)
- 2.2 *Other Standard*:
[USP XIX United States Pharmacopeia](#)

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *disposable capillary tubes, n*—in accordance with this specification and the expected product performance expressed in this standard, those capillary tubes which are to be used one time only. *Any institution or individual who reuses a disposable capillary tube must bear full responsibility for its safety and effectiveness.*

4. Classification

- 4.1 This specification covers two different disposable glass sample capillary tubes as follows:
Type I—Coated with heparin.
Type II—Uncoated.

5. Materials

5.1 *Glass*—The pipets made to this specification shall be fabricated from borosilicate glass, Type I, Class B, or soda-lime glass, Type II, in accordance with Specification [E438](#).

5.2 *Heparin*—Heparin shall be of ammonium salt isolated from the lungs or intestinal mucosa of beef or pork origin. The heparin potency shall be 1 mg of ammonium heparin compound which shall be equal to at least 60 United States Pharmacopeia (USP) units. Dry or wet heparin may be applied to the tube.

6. Physical Requirements

6.1 *Design*—The capillary tubes shall be straight and open at both ends without lip or constriction. The capillary tube may be lightly firepolished on one end. The bore of the tube shall be uniform and not vary in excess of 0.025 mm in 75 mm.

6.2 *Dimensions*—Type I and Type II capillary tubes shall have a length of 75 ± 0.5 mm. Inside diameter shall be from 1.07 to 1.24 mm. Wall thickness shall be $0.20 + 0.03, - 0.02$ mm, as specified in [Fig. 1](#).

¹ This specification is under the jurisdiction of ASTM Committee [E41](#) on Laboratory Apparatus and is the direct responsibility of Subcommittee [E41.01](#) on Apparatus Laboratory Ware and Supplies.

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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.