



Designation: E 205 – 96 (Reapproved 2000)

Standard Specification for Glass and Oxygen Combustion Flask¹

This standard is issued under the fixed designation E 205; 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 approval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the flask and closure, with a fixed platinum sample holder, used in the original oxygen-flask combustion procedures (1, 2).²

NOTE 1—This specification was originally developed by the Committee on Microchemical Apparatus, Division of Analytical Chemistry, American Chemical Society (3). Specifications for types of apparatus that utilize electric (2, 4-7) or infrared (8) ignition are not included because of lack of experience with these.

2. Referenced Documents

2.1 ASTM Standards:

- E 920 Specification for Commercially Packaged Laboratory Apparatus³
- E 921 Specification for Export Packaged Laboratory Apparatus³
- E 1133 Practice for Performance Testing of Packaged Laboratory Apparatus for United States Government Procurements³
- E 1157 Specification for the Sampling and Testing of Reusable Laboratory Glassware³

3. Combustion Flasks

3.1 Combustion flasks shall be of borosilicate glass and shall conform to the requirements shown in Fig. 1 for the 300 and 500-ml sizes, respectively.

NOTE 2—Larger flasks (1000 and 2000-ml sizes) have been used, particularly when analyses are done on tissue.

4. Flask Closure

4.1 The flask closure, that is used with either size flask, shall be of borosilicate glass and shall be provided with a fixed platinum sample holder and shall conform to the requirements shown in Fig. 1.

NOTE 3—**Caution:** Although broad usage has shown oxygen flask combustion to be generally safe, precautions, such as use of gloves, goggles, shields, etc., should be taken when using these flasks for this purpose.

5. Sampling and Testing

5.1 Refer to Specification E 1157.

6. Packaging

6.1 Select from one of Specification E 920, Specification E 921, or Practice E 1133.

7. Keywords

7.1 combustion; flask; glass; oxygen

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.

Current edition approved April 10, 1996. Published July 1996. Originally published as E 205 – 62T. Last previous edition E 205 – 64 (1991).

² The boldface numbers in parentheses refer to the list of references appended to this specification.

³ *Annual Book of ASTM Standards*, Vol 14.04.