



Designation: **C 830 — 93 (Reapproved 1998) 830 — 00**

Standard Test Methods for Apparent Porosity, Liquid Absorption, Apparent Specific Gravity, and Bulk Density of Refractory Shapes by Vacuum Pressure¹

This standard is issued under the fixed designation C 830; 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 determination of the following properties of refractory shapes:

- 1.1.1 Apparent porosity,
- 1.1.2 Liquid absorption,
- 1.1.3 Apparent specific gravity, and
- 1.1.4 Bulk density.

1.2 These test methods are applicable to all refractory shapes except those that chemically react with both water and mineral spirits. When testing a material capable of hydration or other chemical reaction with water but which does not chemically react with mineral spirits, mineral spirits is substituted for water and appropriate corrections for the density differences are applied when making calculations.

1.3 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are provided for information only.

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—Test Methods C 20 cover procedures for testing properties of refractories that are not attacked by water.

2. Referenced Documents

2.1 *ASTM Standards:*

¹ These test methods are under the jurisdiction of ASTM Committee C-8 on Refractories and are the direct responsibility of Subcommittee C08.03 on Physical Tests. Current edition approved Feb. 15, 1993. Published April 1993. 10, 2000. Published June 2000. Originally published as C 830 – 76. Last previous edition C 830 – 93 (1998).