



Standard Specification for REFRACTORIES FOR INCINERATORS AND BOILERS¹

This Standard is issued under the fixed designation C 64; 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 reappraisal.

⁶ NOTE—Tables 3 and 6 were editorially changed in February 1973.

1. Scope

1.1 This specification covers the requirements for refractories that may be used in the construction or repair of incinerators and boilers.

1.2 It is beyond the scope of this specification to prescribe the form or class of refractories to be applied in the particular areas of incinerators or boilers.

NOTE 1—This specification combines and supersedes the following ASTM standards:

C 64 Specification for Fireclay Brick Refractories for Heavy Duty Stationary Boiler Service²

C 106 Specification for Fireclay Brick and Silicon Carbide Brick for Incinerator Service²

C 153 Specification for Fireclay Brick Refractories for Moderate Duty Stationary Boiler Service²

C 176 Specification for Fireclay Plastic Refractories for Boiler and Incinerator Services²

C 178 Specification for Air-Setting Refractory Mortar (Wet Type) for Boiler and Incinerator Services²

C 213 Specification for Alumina-Silica-Base Castable Refractories for Boiler Service²

NOTE 2—The values stated in U.S. customary units are to be regarded as the standard.

2. Applicable Documents

2.1 ASTM Standards:

C 16 Load Test for Refractory Brick at High Temperatures²

C 20 Test for Apparent Porosity, Water Absorption, Apparent Specific Gravity, and Bulk Density of Burned Refractory Brick²

C 24 Test for Pyrometric Cone Equivalent (PCE) of Refractory Materials²

C 71 Definitions of Terms Relating to Refractories²

C 92 Test for Sieve Analysis and Water Content of Refractory Materials²

C 107 Panel Spalling Test for High Duty Fireclay Brick²

C 113 Test for Reheat Change of Refractory Brick²

C 122 Panel Spalling Test for Super Duty Fireclay Brick²

C 133 Test for Cold Crushing Strength and Modulus of Rupture of Refractory Brick and Shapes²

C 134 Test for Size and Bulk Density of Refractory Brick and Insulating Fire Brick²

C 154 Test for Warpage of Refractory Brick and Tile²

C 155 Classification of Insulating Fire Brick²

C 179 Test for Drying and Firing Shrinkage of Fireclay Plastic Refractories²

C 180 Panel Spalling Test for Fireclay Plastic Refractories²

C 181 Test for Workability Index of Fireclay Plastic Refractories²

C 198 Test for Cold Bonding Strength of Air-Setting Refractory Mortar (Wet Type)²

C 199 Test for Refractoriness of Air-Setting Refractory Mortar (Wet Type)²

C 210 Test for Reheat Change of Insulating Fire Brick²

C 268 Test for Modulus of Rupture of Castable Refractories²

C 269 Test for Permanent Linear Change on Firing of Castable Refractories²

C 491 Test for Modulus of Rupture of Air-Setting Plastic Refractories²

C 571 Chemical Analysis of Carbon and Carbon-Ceramic Refractories²

C 573 Chemical Analysis of Fireclay and High-Alumina Refractories²

3. Classification

3.1 Five forms of refractories are classified according to their mode of installation or use.

¹ This specification is under the jurisdiction of ASTM Committee C-8 on Refractories.

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This specification combines and supersedes C 64 - 61, C 106 - 67, C 153 - 61, C 176 - 67, C 178 - 47 (1958), and C 213 - 66.

² 1974 Annual Book of ASTM Standards, Part 17.