

1. Product Name

Holcim US C595 FortiCem®
Portland-Pozzolan Blended Cement

2. Manufacturer

Holcim (US) Inc.
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3. Product Description

Basic Use

Holcim US C595 FortiCem® Portland-Pozzolan Blended Cement is a blended cement designed to meet performance demands and environmental concerns. FortiCem meets ASTM C150 requirements for Type IP(25) blended cement.

FortiCem cement is a basic building material used in a wide variety of commercial and architectural concrete construction applications. Concrete made with FortiCem, using the proper mix design and construction practices, can be durable and resistant to the impact of harsh environmental influences, such as freezing and thawing, and exposure to de-icing chemicals. Uses include:

- Ready-mix concrete applications (with or without Supplementary Cementitious Materials (SCMs))
- Architectural and Structural Precast Elements
- Concrete Block / Concrete Masonry Units (CMUs)
- Paving
- Geotechnical
- Pipes

Compositions and Materials

The primary ingredients of FortiCem cement are calcium silicate based clinker, limestone and pozzolan. These are manufactured into a finely ground powder that, when mixed with water, sets and hardens into a solid monolithic mass. The hydration of calcium silicates forms a gel-like material called calcium silicate hydrate.

Manufactured under controlled conditions in our quality control laboratories, all Holcim US cement rigorously tested to verify its performance and uniformity.

Types

ASTM C150 Type IP(25)– FortiCem® Portland-Pozzolan Blended Cement

Sizes

Holcim US C595 FortiCem® Portland-Pozzolan Blended Cement can be shipped by rail or truck in bulk tons or can be packaged in standard bags.



C595 Envirocore® FortiCem® Cement is sold throughout the United States

Benefits

Meets ASTM C595 standards for Type IP(25) blended cement; it is recognized in a number of construction standards.

Limitations

Many variables beyond the control of the cement manufacturer can affect concrete performance. Good concreting practices are required in order to achieve desired results. Special attention must be given to formwork, batching, mixing, placing, finishing and curing. In special applications, selection of aggregates, admixtures and additives may need to be scrutinized. Holcim US recommends that all concrete mix proportions be tested for strength and durability properties in a qualified concrete lab.

4. Technical Data

Applicable Standards

ASTM International

- **ASTM C150** (Type IP) Standard Specification for Blended Cements

Hydraulic Cements

American Association of State and Highway Transportation Officials (AASHTO)

- **AASHTO M 240** (Type IP) Blended Hydraulic Cement

Physical/Chemical Properties

FortiCem is manufactured to conform to all applicable requirements of ASTM C595, and is formulated to provide consistent strength, durability and workability, as well as a finished product appearance.

5. Installation

Preparatory Work

Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer. Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

Methods

Concrete is a structural material consisting of hard, chemically inert material—usually sand and gravel—that is bonded together by cement and water. The character of structural concrete is largely determined by the water-cement ratio. The amount of cement in relation to the amount of aggregate is especially critical to a durable, strong concrete. Freshly mixed (plastic) and hardened properties of concrete can be changed by adding chemical and mineral admixtures to concrete during batching.

Admixtures are used to adjust setting time and/or hardening, reduce water demand, increase workability, entrain air, provide cost-effectiveness and adjust other concrete properties. Good concreting practices are required for proper, durable and strong concrete.

Proper proportioning, batching, mixing, placing, consolidating, finishing and curing, subgrade preparation, formwork, uniform slump and other special techniques are critical to achieving the desired results. Freshly mixed concrete should be plastic or semi-fluid and moldable.

6. Precautions

Safety

Avoid direct contact with the skin. If contact occurs, wash skin with water as soon as possible. Exposure of sufficient duration to wet FortiCem can cause serious and potentially irreversible tissue destruction in the form of chemical burns. If FortiCem gets into the eyes, immediately flush eyes thoroughly with water and seek medical attention. For complete information, reference the applicable Safety Data Sheets (SDSs) and consult prior to use of this product. These SDSs are available at www.holcim.us

Building Codes

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

7. Availability and Cost

Availability

Holcim US C595 FortiCem® Portland-Pozzolan Blended Cement is available throughout Colorado and Texas. Contact the manufacturer for information about local availability.

Cost

Contact the nearest Holcim sales office for pricing information.

8. Warranty

Upon request, Holcim US can provide Material Certification Reports demonstrating that Holcim US C595 FortiCem® Portland-Pozzolan Blended Cement meets applicable ASTM standards. Holcim US will not guarantee finish work, having no control over use of this product. US shall not be responsible for condition of cement after delivering to dealer or distributor.

9. Maintenance

Follow proper instructions in areas where concrete cleaners and sealers are required. Contact the appropriate product manufacturer before application.

10. Technical Services

Technical service is available by contacting the nearest Holcim sales office at (888) 646-5246. Technical service can be provided at jobsite locations with advance notice.

For questions on any technical information contained in this document, contact a Holcim US Technical Service Engineer for further detail.

11. Product Information

Additional product information is available from the manufacturer upon request.

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