

1. Product Name

- C1157 Blended Cement

2. Manufacturer

Holcim (US) Inc.
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3. Product Description

Basic Use

C1157 Blended Cement may contain pre-consumer recycled materials or their manufacture may use less production energy than a comparable Portland cement. C1157 Blended Cement meets the requirements of ASTM C1157.

C1157 Blended Cement is a basic building material used in a wide variety of commercial and architectural concrete construction applications. Concrete made with Holcim Blended Cement using the proper mix design can be resistant to the attack of harsh environmental influences, such as frost and de-icing chemicals. Uses may include

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|-----------------|--------------------------------|
| ■ Bridges | ■ Grouts |
| ■ Tilt-up | ■ Masonry mortars |
| ■ Cast-in-place | ■ Concrete masonry units (CMU) |
| ■ Roads | |

C1157 Blended Cement is produced to meet the applicable requirements of ASTM C1157 for one or more of Types HE, MS, HS, MH and LH. Some cements may meet several specification requirements. Contact the manufacturer for details.

Composition and Materials

The primary ingredients of Holcim C1157 Cement are calcium silicate based clinker, gypsum, and other mineral constituents. These may be limestone or other mineral components. They are ground to a fine 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.

All Cement is manufactured under controlled conditions to ensure product performance and uniformity verified by our quality control laboratories. Meets ASTM C1157 standards.



C1157 Blended Cement paved I-25

Types

- **Type GU** hydraulic cement for general construction used when 1 or more of the special types are not required
- **Type HE** High Early Strength
- **Type HS** High Sulfate Resistance
- **Type MH** Moderate Heat of Hydration
- **Type LH** Low Heat of Hydration

Sizes

- C1157 Blended Cement can be shipped by rail or truck in bulk tons or can be packaged in standard bags.

Benefits

- Manufactured under controlled conditions for consistent quality and uniformity
- Selections to meet a variety of application needs

Limitations

There are many variables beyond the control of the cement manufacturer that 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.

4. Technical Data

Applicable Standards

ASTM International

- **ASTM C1157** Performance Specification for Hydraulic Cement

Physical/Chemical Properties

C1157 Blended Cement is manufactured to conform to all applicable requirements of ASTM C1157, 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 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, as well as proper 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.

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 Holcim C1157 Blended Cement can cause serious and potentially irreversible tissue destruction in the

form of chemical burns. If Holcim C1157 Blended Cement gets into the eyes, immediately flush eyes thoroughly with water and seek medical attention and seek medical attention.

For more complete information, reference is made to the applicable Safety Data Sheets (SDS), which should be consulted prior to use of this product. These SDS are available at www.holcim.us.

Building Codes

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

6. Availability and Cost

Availability: C1157 Blended Cement is available throughout most of the United States. Contact the manufacturer for information about local availability.

Cost: Pricing information can be obtained from the nearest Holcim Sales Office.

7. Warranty

Upon request, Holcim US can provide Material Certification reports demonstrating that C1157 Blended Cement meets applicable ASTM standards. Holcim will not guarantee finish work, having no control over use of this product. Holcim shall not be responsible for condition of cement after delivering to dealer or distributor.

8. Maintenance

In areas where concrete cleaners and sealers are required, proper instructions should be followed. Contact the appropriate product manufacturer before application.

9. Technical Services

Technical service is available by contacting the nearest Holcim Sales Office at (888) 646-5246. With advance notice, technical service can be provided at jobsite locations.

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

10. Filing Systems

Additional product information is available from the manufacturer upon request.

Corporate Headquarters

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