



Essroc Portland Cement

Bulk Portland Cement for Concrete Applications

Providers of Quality Products and Technical Support for:

Portland and Blended Cements,
Slag, and Fly Ash

BRIXMENT, Brick-Lok, and
VELVET Masonry Cements

Saylor's Portland and
Saylor's PLUS Cements

Flamingo-BRIXMENT Colored
Cements for Masonry

MANUFACTURER:

Essroc Cement Corp.
Corporate Office
3251 Bath Pike
Nazareth, PA 18064
800-437-7762
www.essroc.com

PRODUCT DESCRIPTION:

Essroc Portland Cement is a hydraulic cement conforming to ASTM C 150, ASTM C 1157, and AASHTO M-85.

Essroc carefully selects and blends the raw materials and follows stringent quality control procedures in the manufacturing of Essroc Portland Cement. This results in a high quality, consistent Portland Cement that is easy to work with during construction and contributes to long lasting, aesthetically pleasing structures.

BENEFITS:

- More consistent plastic and hardened concrete properties
- Consistent color
- Better workability
- Easier finishability
- Several formulations to meet a variety of project requirements

APPLICATIONS:

Essroc Portland Cement is suitable for use in ready-mixed and site-batched concrete, concrete paving, well-cementing, precast/prestressed concrete, concrete pipe, concrete block, and paver production.

Essroc Portland Cement is compatible with water-reducing,

super-plasticizing and air-entraining admixtures as well as mineral admixtures.

TYPES AND USES:

Essroc Portland Cement is available in the following types:

Type I: A general purpose Portland cement that is most commonly used because it delivers excellent results in a wide range of building applications.

Type II: Offers moderate resistance to sulfate attack and provides low heat generation.

Type III: Develops higher early strengths when used in concrete. It is especially useful when placing concrete in cold weather.

Type V: Similar to Type II, though Type V provides even greater resistance to sulfate attack and even lower heat generation.

Type IA, IIA, and IIIA: Air-entrained Portland Cements are similar to their corresponding types but with a small dose of air-entraining admixture inter-ground into the cement. These cements are beneficial when the addition of an air-entraining admixture is either not possible or desired. Air-entrained Portland Cements are typically used when additional workability is desired or to provide increased resistance against scaling when the concrete or mortar is exposed to freeze-thaw cycles in the presence of de-icing chemicals.

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PACKAGING:

Essroc Portland Cement is normally sold by the ton and shipped in bulk cement tanker trucks. Packages of 94 lbs (42.6 kg) can be provided for testing purposes.

AVAILABILITY:

Contact your Essroc Sales Representative for availability in your area.

APPLICABLE STANDARDS:

- ASTM C 150 Portland Cement
- ASTM C 1157 Hydraulic Cement
- AASHTO M-85 Portland Cement

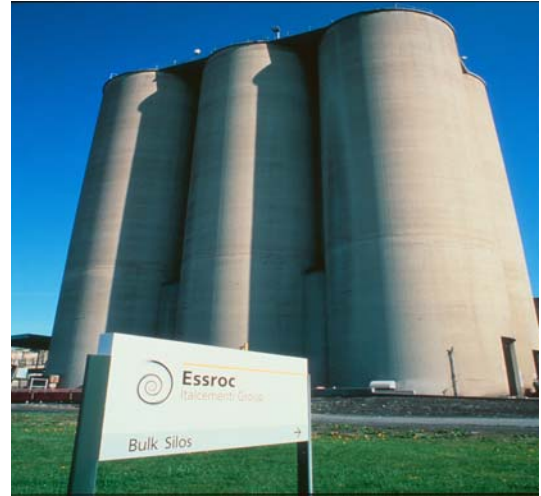
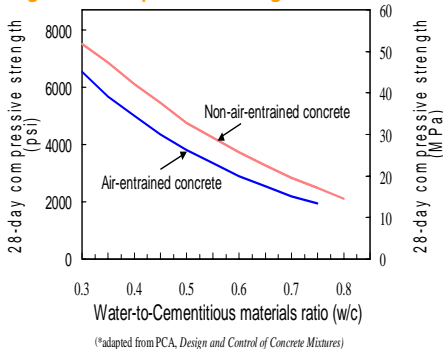
PROPORTIONING:

Follow ACI 211, "Standard Practice For Selecting Proportions For Normal, Heavyweight, and Mass Concrete." Typically, Portland Cement has a specific gravity of 3.15. Optimization of the amount to be used in each mix is determined through testing.

TECHNICAL DATA:

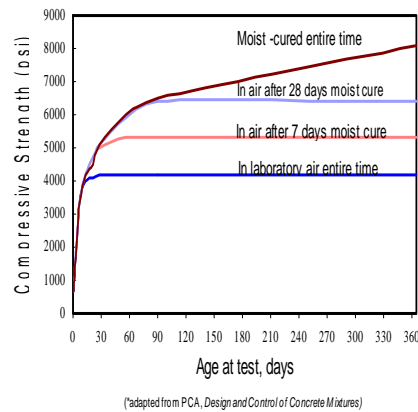
Design of a concrete mixture is proportioned according to the requirements of the project specifications. The amount and source of each material in the mix design can be varied to accommodate for workability, durability, and strength requirements.

Figure 1: Compressive Strength vs. W/C Ratio*



The overall durability and strength of concrete are dependent on using good concrete practices. Figures 1 and 2 demonstrate the impact of the water-to-cementitious ratio (w/c) and the effect that proper curing has on concrete.

Figure 2: Effects of Moist Curing*



MIXING and FINISHING CONCRETE:

Use a drum mixer and follow ACI 304 recommendations for mixing and finishing and ACI 308 for curing concrete.

WARRANTY:

Essroc warrants that its products are free from manufacturing defects and conform to applicable ASTM standards.

Essroc makes no warranty or guarantee, express or implied, including warranties of fitness for a particular purpose or merchantability, respecting its products. User assumes all risks and liability in connection with the suitability of the products for the intended use.

PRECAUTIONS:

Minimize direct contact with wet cement. Exposure of sufficient duration to wet Portland Cement can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns. Consult the relevant MSDS before working with Essroc Portland Cement.

FOR MORE INFORMATION:

For more information on Essroc's products or technical assistance visit us online at www.essroc.com or call at (800)437-7762.