

Company Profile

Lafarge North America is part of the Lafarge Group. The world leader in building materials, active on five continents, the Lafarge Group holds top-ranking positions in all four of its divisions – cement, aggregates and concrete, roofing and gypsum.

By focusing on the development and improvement of building materials, Lafarge puts the customer at the core of its strategy and offers the construction industry and the general public innovative solutions that will bring more safety, comfort and beauty to our everyday lives.

Limited Warranty

Lafarge warrants that Lafarge MaxCem meets the applicable requirements of ASTM, CSA and AASHTO. Lafarge makes no other warranty, whether of merchantability or fitness for a particular purpose, with respect to Lafarge MaxCem. Having no control over its use, Lafarge will not guarantee finished work in which Lafarge MaxCem is used.

Please contact your Lafarge Office for specific product information, availability and ordering.

Lakes and Seaway Business Unit

Bingham Farms, Michigan
Phone: 248-594-1991

U.S. East Business Unit

Alpharetta, Georgia
Phone: 678-746-2000

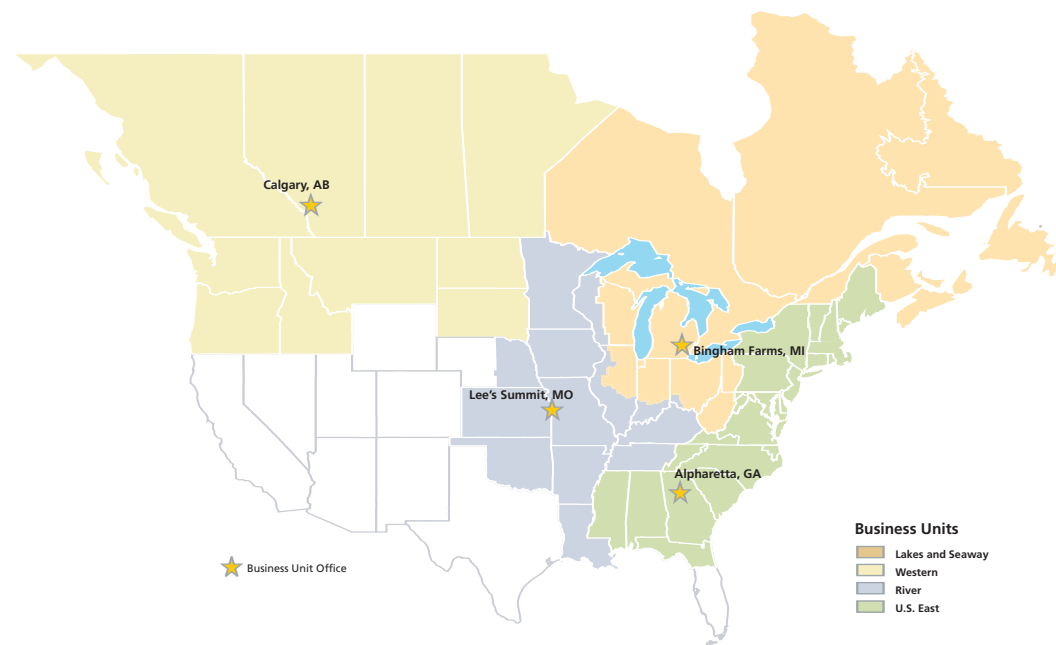
River Business Unit

Lee's Summit, Missouri
Phone: 816-251-2100

Western Business Unit

Calgary, Alberta
Phone: 403-271-9110

**Lafarge North America
Cement Operating Areas**



Lafarge North America Inc.
12950 Worldgate Drive, Suite 500
Herndon, VA 20170

Lafarge Canada Inc.
606 Cathcart Street
Montréal, Québec H3B 1L7

www.lafarge-na.com



LAFARGE

MaxCem® Blended Cement

- Improved Strength
- Improved Workability
- Improved Placeability





MaxCem® Blended Cement

MaxCem is a blend of Ground Granulated Blast Furnace Slag (GGBFS) and portland cement.

MaxCem is suitable for use in virtually all concrete and concrete product applications.

MaxCem is available in various blend proportions to meet your project needs.

Improved Strength MaxCem surpasses the strength of portland mixes at 28 days and beyond. MaxCem has been used successfully in concrete patching applications.

Improved Workability Concrete produced with MaxCem improves the workability of the concrete and has better finishing characteristics.

Improved Placeability Concrete produced with MaxCem improves the placeability of concrete. Standard vibration provides rapid consolidation with reduced segregation and honeycombing.

Reduced Permeability MaxCem lowers the permeability of concrete. Lower permeability reduces the ingress of water and salts, increasing the durability of the concrete and protection of reinforcing steel.

Reduced Alkali-Silica Reaction (ASR) MaxCem improves the resistance to ASR by decreasing the permeability of the concrete and preventing the migration of alkalis to reactive aggregates, and by decreasing the total alkali content in the concrete. Research has confirmed that the use of slag cement in proper proportions in concrete is effective in reducing the potential for excessive expansion of concrete due to ASR. Confirmation testing should be performed on a specific project basis.

Increased Flexibility and Improved Performance Through Ternary Blends MaxCem can be combined with fly ash to maximize economics while providing improved performance over traditional straight cement concrete.

MaxCem can be combined with silica fume to deliver high performance concrete. This enhances reinforcement protection from chloride corrosion while increasing the placeability, finishability and strength of the concrete mix.

Eliminate Need for Additional Silos MaxCem can be used in virtually all concrete applications, eliminating the need for additional silos.

Improved Night Visibility and Color Options MaxCem's lighter color improves night visibility and accommodates the use of color additives.

Environmentally Friendly Alternative As a replacement for portland cement, MaxCem reduces the amount of energy needed to produce a yard of concrete; thereby, generating overall savings of our natural resources.



Lafarge Blended Cements provide a significant contribution to sustainable construction. The use of these materials in concrete production consumes less energy and offers improved efficiency and building performance. These materials can also be used to achieve LEED (Leadership in Energy and Environmental Design) points in the USGBC's (U.S. Green Building Council) and the CaGBC's (Canadian Green Building Council) LEED programs.



MaxCem® Blended Cement

Properties of "Fresh Concrete"

Water requirements – Concrete mixes containing these products generally require less water for a given slump.

Air Content – When changing mix ingredients, it is prudent and recommended to check air-entraining dosage and adjust as necessary.

Workability – These cements generally improve workability of concretes with equal slump.

Segregation and Bleeding – Concrete containing these products can have lower bleed water and slower bleed rates. There are no segregation issues related to this product.

Setting Time – Concrete containing these products may have slightly extended set times especially at lower ambient/concrete temperatures. Set time is very dependent upon temperature.

Finishability – Finishability of concrete is generally improved with the use of these products.

Pumping – Concrete containing these cements generally has improved pumpability.

Proportioning – These products have a slightly lower specific gravity than normal portland cement. Proper mix proportions should be verified.

Curing – Proper curing of all concrete is essential and should commence immediately after finishing.

Properties of "Hardened Concrete"

Strength – Generally, later strengths are enhanced. Early strengths can be lower, especially in cooler temperatures. This is applicable to compressive and flexural strengths.

Drying Shrinkage – Effect is generally small and of little practical significance.

Permeability and Absorption – With proper curing, concrete containing these cements is generally less permeable and has lower absorption rates.

Alkali-Aggregate Reactivity – Cements containing slag can provide several benefits to help mitigate ASR (alkali silica reactivity) in concrete.

The ability of these products to mitigate ASR in concrete needs to be assessed on an individual basis.

Resistance to Sulfate Attack – This product can be used as part of a system that can improve the resistance of concrete to sulfate attack. MaxCem, individually, should not be considered as adequate protection against sulfate attack.

Consult with your local Lafarge representative before using MaxCem for this purpose.

Concrete Color – Concrete made with these products is generally lighter in color.

Corrosion of Embedded Steel – There is a direct relationship between permeability and corrosion resistance. Therefore, corrosion can be decreased as a result of improved permeability as described above.

Carbonation – With proper curing, carbonation should not be a concern.

Freeze-Thaw Resistance – Properly designed, finished and cured concrete with an adequate air-void system is the same with or without these cements.

Deicer Scaling – Properly designed, finished and cured concrete is resistant to deicer scaling. These products require the same curing as concrete containing normal portland cement.

Chemical Resistance – Reduced permeability as described above can slightly improve chemical resistance.

Soundness – The volume stability of cementitious paste is unaffected by these cements.

MaxCem is produced in accordance with ASTM, AASHTO and CSA standards using very stringent quality control procedures.

Product claims are based on proper use in accordance with recognized industry standards. Please contact your Lafarge North America representative for assistance.

Precautions

Direct contact with wet cement should be avoided. If contact occurs, the skin should be washed with water as soon as possible. Exposure can cause serious, potentially irreversible tissue destruction in the form of chemical (caustic) burns. If cement gets into the eyes, immediately rinse thoroughly with water and seek medical attention. For more information, reference the applicable Lafarge Material Safety Data Sheet (MSDS). The MSDS should be consulted prior to use of this product and is available upon request and online at www.lafarge-na.com.