

WHITEMUD^{MK}[®] and the Environment



WITH WHITEMUD^{MK}, THE NORTH AMERICAN CONCRETE INDUSTRY HAS ACCESS TO ABUNDANT, HIGH REACTIVITY METAKAOLIN. NOW, CONSTRUCTION PROJECTS CAN ACHIEVE THEIR ENVIRONMENTAL TARGETS WITH A HIGH PERFORMANCE CONCRETE.

IMPROVED DURABILITY AND SUSTAINABILITY

Buildings and other construction projects built to last longer have a future sustainability focus. When Whitemud^{MK} is used, the life of concrete and the useful life of the building is extended. Whitemud^{MK} makes concrete more durable by making it denser, less permeable and very resistant to alkali silica reactions. The strength of concrete – flexural, compressive and tensile – increases significantly. Imagine, reduce the volume of cementitious content in concrete while enhancing the durability & sustainability... it's possible with Whitemud^{MK}!

REDUCED GREENHOUSE GAS AND CO₂ EMISSIONS

The process to manufacture one tonne of Whitemud^{MK} creates 55% less CO₂ than Portland Cement. And because concrete made with Whitemud^{MK} will reduce the volume of cementitious content, overall CO₂ emissions are also reduced. Greenhouse gas emissions are further diminished because Whitemud^{MK} emits less Nox and Sox into the atmosphere than Portland Cement and because no CO₂ emissions are created due to calcination.

LIGHTER COLOUR BENEFITS

Since Whitemud^{MK} is off-white, the concrete it produces is lighter in colour compared to traditional concrete. The improved reflectivity, or Albedo ratio, offers buildings constructed with light coloured concrete the benefit of cooler, less energy-intensive structures. White, precast concrete can also benefit from Whitemud^{MK}. An added feature for architects is the greater design flexibility that lighter coloured materials offer. Whitemud^{MK} will improve the performance of a white cement concrete without compromising the desired aesthetics. Whitemud^{MK} can be used to create more vibrant colours without the pigment loading necessary with traditional concretes.

THERE IS A GROWING DEMAND FOR HIGHER ENVIRONMENTAL STANDARDS IN THE CONSTRUCTION INDUSTRY. ACROSS NORTH AMERICA, BUILDING STANDARDS ARE CHANGING TO MEET THE CALL FOR A REDUCTION IN GREENHOUSE GAS EMISSIONS AND AN INCREASE IN THE SUSTAINABILITY OF OUR BUILT ENVIRONMENT.

WHITEMUD^{MK} CAN HELP MEET ENVIRONMENTAL STANDARDS

LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED®)

In the United States, the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark promoting construction that has a positive impact on human and environmental health. Federal, state and local governments in the United States are adopting LEED, as are architects and builders. In Canada, the Canada Green Building Council (CaGBC) LEED Certification distinguishes building projects that have demonstrated a commitment to sustainability by meeting the highest performance standards.

The LEED rating system evaluates all aspects of a building project – from site selection and materials used, to water efficiency and indoor environmental quality. In Canada, even a building's durability is assessed. Achieving LEED certification is becoming a selling point for builders and the public who increasingly want buildings that perform to a high environmental standard.

To achieve LEED status, building projects are awarded points in five categories. Whitemud^{MK} can help builders and contractors achieve targets in three of those categories:

- **sustainable sites**
- **materials and resources**
- **innovation and design**
 - **40% Portland Cement reduction**
 - **durability**

Whitemud^{MK} can help you achieve LEED targets.

For more information, please contact:

WHITEMUD RESOURCES INC.

Phone: (403) 517-0040

Fax: (403) 517-0046

Toll Free: 1-877-909-4483

info@whitemudresources.com

www.whitemudresources.com



Whitemud^{MK}
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LEED is a registered
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and CaGBC

POTENTIAL LEED® CREDIT POINTS

- **SUSTAINABLE SITES**
- **MATERIALS AND RESOURCES**
- **INNOVATION AND DESIGN**
 - **40% PORTLAND CEMENT REDUCTION**
 - **DURABILITY**

