



## QUALITY LIME & STONE PRODUCTS THAT IMPROVE YOUR WORLD



### Genoa Plant Background

The Graymont Dolime (OH) Inc. facility in Genoa, Ohio, has produced dolomitic lime products for over 90 years.

Graymont Dolime is owned by Graymont LTD, a privately held business based in Richmond, British Columbia. Graymont is the third largest producer of lime products in North America with facilities throughout Canada and the United States. Graymont also partners with Grupo Calidra, the largest lime producer in Mexico.

More information about the company can be found on the Graymont website at [www.graymont.com](http://www.graymont.com).

### Our Production Process

#### Dolomitic Limestone

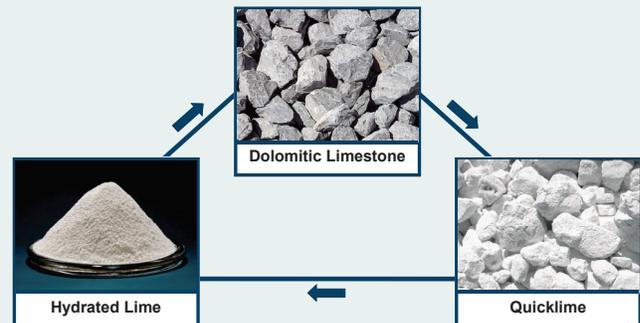
Limestone, the primary raw material, is a sedimentary rock that is formed by the compaction of the remains of coral animals and plants on the bottoms of oceans around the world. Limestone is composed of the mineral calcite (calcium carbonate) and/or the mineral dolomite (calcium and magnesium carbonate) along with small amounts of other minerals.

The dolomitic limestone in Genoa is considered to be one of the best deposits in the world for the production of building lime products due to the bright white color of the processed stone and excellent workability of its hydrated lime. The limestone deposit is over 400 feet thick. Permitted reserves will meet current facility demand for over 100 years.

#### Quicklime Production

Limestone is extracted from the ground in an open pit quarry. The dolomitic stone is crushed and screened to a size suitable as feedstock to the three rotary kilns at the plant.

Rotary kilns use fuel blends of coal and petroleum coke to cook (calcine) the dolomitic limestone at temperatures exceeding 2000°F. The resulting product, called quicklime, is principally oxides of calcium and magnesium.



#### Hydration Process

Quicklime can be converted into a fine, dry powder by adding water (hydration) under controlled conditions. There are several types of hydrated lime produced at the Genoa facility. Type N or Normal hydrate is produced under atmospheric pressure. This product has excellent chemical availability but requires a 24 hour soak period before it can be used for construction applications. Type S or Special hydrate is produced by adding water to quicklime at high pressure levels. Type S hydrates have a fine particle size and do not require soaking prior to use. An air entrainment additive can be added to Type S hydrates to enhance the workability, board life and freeze-thaw characteristics of lime-based mortars. Air-entrained products are called Type SA.

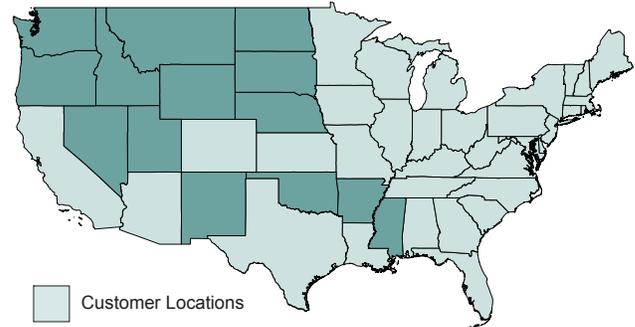
## Graymont Dolime (OH) Inc.

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## Our Markets

Graymont Dolime (OH) Inc. serves a large geographic area from the Genoa, Ohio, facility. Graymont brands such as Ivory<sup>®</sup>, Grand Prize<sup>®</sup>, Mortaseal<sup>®</sup>, Bondcrete<sup>®</sup>, Super Limoid<sup>®</sup> and Niagara<sup>®</sup> are well known in their respective markets.

Though principally built to produce products for construction, the products produced at Genoa are now used for a wide variety of applications.



## Applications



**Construction** - Hydrated lime products are used as a component of plasters, mortars and stuccos. These products are used for new construction as well as the restoration of historic structures.

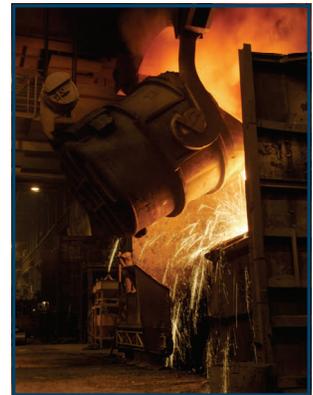
**Steel** - Dolomitic quicklime is used to remove impurities from steel and improve the refractory life in fluxing vessels.

**Environmental Remediation** - Dolomitic lime products can be used to remove silica, increase pH and stabilize heavy metals in both liquid and solid wastes. When added to soil, lime can be a very effective way to solidify and prevent future discharge of hazardous wastes.

**Glass** - When lime is heated with silica sand and sodium carbonate, a solution is formed that does not crystallize when it is cooled. Instead, it hardens to an amorphous, clear, and nearly colorless solid - glass.

**Flue Gas Treatment** - Lime products can be used to remove pollutants from the gases created in industrial processes.

**Agriculture** - Lime can be added to soil to adjust pH, improve soil tilth and provide calcium and magnesium compounds that are necessary for plant growth.



## Our Community

Graymont has a long-term commitment to the sustainability and enhancement of the society, environment and economy of all of the communities in which we live and work.

The Genoa facility has not only demonstrated community support by investing in community programs, projects and activities but also by encouraging and supporting employee involvement in the community.

The plant currently has over 60 employees. The safety and development of these employees is a focus area for the plant. Over 80% of our employees currently live within eleven miles of the plant.

Graymont directly contributes to the local community through the wages of these employees, real estate taxes and property taxes in excess of \$2,900,000 annually.



Bridget and Karen volunteer as reading tutors for 8 year olds at a local elementary school.



Four Graymont employees are volunteer fire-fighters in the community. They are Brian (fireman 6 years), Mike (fireman and EMT 8 years), Gabe (fireman 7 years), and Greg (fireman 29 years, investigator 15 years, first responder 5 years).