GRAYBOND™
A GRAYMONT™ PRODUCT

# GRAYBOND™ FOR SOIL STABILIZATION

## A new engineered cementitious binder to advance sustainable construction practices.

GRAYBOND™ is a versatile binder that effectively increases soil strength and reduces soil plasticity across a broad range of soil types.

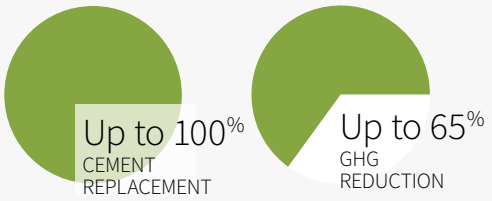
Can be used as:

- Standalone binder OR
- Blended with cement

## THE GRAYBOND™ ADVANTAGE

- **Reliable Supply**
  Formulated from local sources of lime, limestone, and pozzolans, GRAYBOND™ provides long-term supply stability and reduces dependence on materials like fly ash and slag.
- **Cost Competitive**
  Produced using abundant local materials and backed by Graymont's integrated network, GRAYBOND™ is cost competitive with cement and ensures continuity for operators.
- **Lower GHG Footprint**
  Significantly lower GHGs while maintaining a familiar chemical profile for ease of integration from a technical and regulatory standpoint.

GRAYBOND™ can reduce the overall carbon footprint by up to 65% compared to cement while maintaining structural integrity.

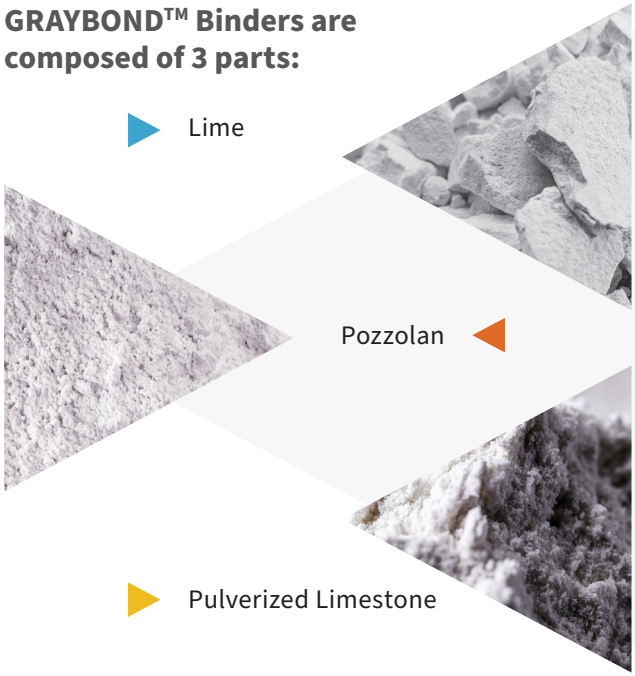


## WHAT IS GRAYBOND™?

The GRAYBOND™ family of patented cementitious binder solutions is a new product line from Graymont that helps customers meet performance targets while reducing costs, enhancing supply chain reliability and lowering GHGs.

**GRAYBOND™ has proven to effectively stabilize (modify and strengthen) a wide range of soil types with Plasticity Index (PI) ranging from 8 to 25.**

**GRAYBOND™ Binders are composed of 3 parts:**




## PILOT TRIAL RESULTS

In a completed field trial, Unconfined Compressive Strength (UCS) testing was conducted to compare the strength characteristics of both Cement and GRAYBOND™ treated soils (PI = 22) at a 4% by wt. binder dosing.

Results showed that:

- GRAYBOND™ treated sections achieved similar strength performance and improved PI reduction compared to cement, highlighting the potential to be considered as an effective alternative or pretreatment binder to cement based on soil type.

**Unconfined Compressive Strength (UCS) Comparison**

| Mixes | 7-DAY (avg. PSI) | 28-DAY (avg. PSI) |
|---|---|---|
| Untreated Soil (PI=22) | 211 | 355 |
| 4% Cement Treatment | 547 | 694 |
| 4% GRAYBOND™ Treatment | 614 | 805 |

The UCS of the molded soil-binder mixtures was determined based on the average of 3 specimens at time intervals of 7 and 28 days after treatment.

## LEARN MORE ABOUT GRAYBOND™ FOR YOUR SOIL STABILIZATION PROJECT

Contact us to learn how a high-performance, cost-competitive, low-carbon alternative binder can enhance your next soil stabilization project.

**Email: GRAYBOND@graymont.com**
**Website: graybond.com**