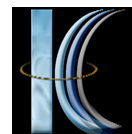




STABILICRETE™

2017 TECHNICAL DATA SHEET



MATERIAL FOR USE ACROSS THE GLOBAL MARKETS AS: SOIL STABILIZATION, FERTILIZER ADDITIVE AND STABILIZATION/SOLIDIFICATION WITHIN THE WASTE MANAGEMENT INDUSTRY AND OTHER SPECIALTY APPLICATIONS

Mineral Analysis Component Descriptions (dried)	Product Component Symbols	Stabilicrete "A" Product Typical Values ¹ (By wt. Ignited Basis)
Silicon Dioxide	SiO ₂	30.7%
Aluminum Oxide	Al ₂ O ₃	3.82%
Iron Oxide	Fe ₂ O ₃	3.83%
Calcium Oxide	CaO	58.7%
Magnesium Oxide	MgO	1.28%
Manganese Dioxide	MnO ₂	0.109%
Phosphorus Pentoxide	P ₂ O ₅	<0.000019%
Sodium Oxide	Na ₂ O	0.0566%
Potassium Oxide	K ₂ O	1.28%
Barium Oxide	BaO	0.0157%
Strontium Oxide	SrO	0.0853%
Sulfur Trioxide	SO ₃	0.0209%
Titanium Dioxide	TiO ₂	0.0791%
Chlorine	Cl	0.0099%
Lead	Pb	0.00906%
Stabilicrete "A"		2.21%
Stabilicrete "B"	CaO Lime Index %	3.34%
Stabilicrete "B2"		9.71%

Note: Some values will change based on other Product Model Numbers.



Figure 1 – Raw Stabilicrete in Quarry Falls

STABILICRETE Product to Soil Composition					
SOIL TYPES					
100% Sandy Loam	→	→	→	→	100% Clay
A	B	B1	B2	B3	B4

(Note: "B" - "B4" increases thermal reaction, allows product to dry more quickly, also to work with iron oxides in clay to strengthen the bond of the product.)



Figure 2 - Screener



Figure 3 – Screen and Conveyor System

Shipping Options ²:

- Trailer – EPA tarped or Pneumatic (raw product)
- Packaging Options – One (1) Ton Super Sack (polypropylene sack with moisture barrier) or Fifty (50) Pounds multilayer paper bags ³

Stabilicrete, a trademarked product, is created during the manufacturing of Portland cement ("cement"). It is the fine-grained, solid, material removed from cement kiln exhaust gas by air pollution control devices. The most important factor frequently overlooked when identifying the specification and application of this product for a particular project, is the fuel source utilized in cement production. Fuel sources such as petroleum, coal, trash, etc. directly affects the chemical analysis with elevated sulfur and lead. Stabilicrete was created using natural gas, the cleanest kiln heating fuel source, which greatly expands its applications and reduces the cost to the customer compared to buying Cement Type I, Type II or Quick Lime due to additional created blends that adapt to areas with challenging soils where Sand and Clay are both present.

Stabilicrete can be used as an additive in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials and other construction applications. A more beneficial use is that Stabilicrete may be used for soil stabilization, waste stabilization and solidification, as a soil-based liner and barrier/cover/cap for containment of hazardous material. It may be used as an additive for agricultural fertilizer and can be used to replace potassium and liming agents.

Physical Properties

Appearance:	Solid, white/tan/gray powder
Auto-Ignition Temperature:	N/A
Boiling Point:	1565° C
Bulk Density:	75-95 (lbs/ft ³)
Decomposition Temperature:	580° C
Evaporation Rate:	N/A
Flammability:	N/A
Flash Point:	N/A
Melting Point:	1410° C
Odor:	Odorless
Odor Threshold:	N/A
Partition coefficient:	N/A
pH:	12.4 pH graduated solution at 25° C
Product Size:	minus 3/8 inch mesh ⁴
Solubility in Water:	0.100g – 1.125g/100g (reactive with water to produce Ca(OH) ₂ with significant amounts of heat)
Vapor Density (air=ml):	Non volatile
Vapor Pressure (+t°):	Non volatile
Viscosity:	N/A



Figure 4 - Vulcan Systems - Dryer & Bag House

¹ Armstrong Forensic Laboratory, Inc. Arlington, TX (Date Analyzed: 01/27/2016)

² Freight is FOB Quarry Falls Plant, Fort Worth, TX

³ Minimum order, additional charges and increased lead time for this shipping option

⁴ (minus 3/8" mesh) = 0.375 inches / 9510 microns / 9.51 millimeters