

Refractory Grade Clays

Hephzibah, GA #022

FEATURES & BENEFITS

VANTAGE® refractory grade kaolins are blends of highly refractory kaolinite clays. These plastic kaolins can be employed in formulations of cast and pressed bodies, and are commonly used to enhance the formability of calcined clays. Their excellent plasticity and dry strength improve the production rate and shape retention of the refractory, and a high PCE value helps to extend refractory service life.

VANTAGE finds application in a variety of intermediate to high duty firebricks, shapes, insulating bricks and saggers where good shape retention and spalling resistance is required. VANTAGE also serves as the plastic component in monolithic refractories including castable, ramming and gunning mixes and mortars. Of critical importance in these applications is a high alumina to alkali ratio to produce durable, highly refractory materials with excellent stability. VANTAGE particle size distributions will also help to minimize drying shrinkage prior to installation.

All VANTAGE refractory clays are mined and processed under rigid Covia QIPSM statistical quality assurance programs. The result is consistent mineralogy, chemical and physical properties, predictable results in demanding refractory applications.

CHEMICAL AND ANALYTICAL DATA

Typical Mean Values. These Do Not Represent a Specification.

	VANTAGE® Grades	
	B-100	LT100
Silicon Dioxide (SiO ₂)	44.90	44.90
Aluminum Oxide (Al ₂ O ₃)	38.50	38.60
Titanium Dioxide (TiO ₂)	1.52	1.62
Iron Oxide (Fe ₂ O ₃)	0.60	0.55
Calcium Oxide (CaO)	0.03	0.03
Magnesium Oxide (MgO)	0.06	0.13
Potassium Oxide (K ₂ O)	0.20	0.10
Sodium Oxide (Na ₂ O)	0.03	0.04
Loss on Ignition (LOI)	13.78	13.64
M.B.I (meq/100g)	3.3	2.3
SSA m²/g	15.5	11.2
pH @10% Solids	3.8	4.3
P.C.E.	34	35





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PARTICAL SIZE ANALYSIS AND PROPERTIES

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	Mesh Size	VANTAGE® Grades	
	MICRONS	B-100	LT100
% Finer	<20	98	97
	<10	94	89
	<5	84	77
	<2	65	56
	<1	52	40
	<0.5	35	22

SHIPPING/ORDERING INFORMATION

Shipping Point: Hephzibah, GA
Originating Carrier: Norfolk Southern
Availability: Bulk and IBC

Truck and Rail

CUSTOMER SERVICE

US & Canada: 1-800-243-9004

Fax: 1-800-243-9005

Worldwide: 1-203-442-2500

Fax: 1-203-972-1378

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GRADE NUMBERS INDICATE RELATIVE VALUES OR RESULTS. THEY ARE NOT A SPECIFICATION OR WARRANTY OF PERFORMANCE.

HEALTH HAZARD WARNING: Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury including Silicosis, a progressive, disabling and sometimes fatal lung disease. IARC and NTP have determined that crystalline silica can cause lung cancer in humans. Risk of injury is dependent on the duration and level of exposure. Follow OSHA or other relevant safety and health standards for the form of crystalline silica called Quartz. Current safety data sheet, containing safety information, is available and should be consulted before usage.

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Silica/Silica Containing

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