VANTAGE®

Refractory Grade Fire clays

TECHNICAL DATA SHEET

Huntingburg, IN #083

FEATURES & BENEFITS

VANTAGE® refractory grade fire clays are custom blends of highly refractive kaolinite and illite clays. These clays can be employed as the primary plastic of cast refractories, but are most commonly used to enhance the performance of calcined kaolinic clays. Their excellent plasticity and dry strength improve the production rate and shape retention of the refractory, and their high PCE values help 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 fire clays are mined and processed under rigid Covia QIP℠ 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 s Specification.

	VANTAGE® Grades	
	RC-30	RC-50
Silicon Dioxide (SiO_2)	58.5	58.5
Aluminum Oxide (Al_2O_3)	25.8	25.6
Titanium Dioxide (TiO_2)	1.3	1.3
Iron Oxide (Fe_2O_3)	2.3	2.5
Calcium Oxide (CaO)	0.3	0.3
Magnesium Oxide (MgO)	0.7	0.7
Potassium Oxide (K_2O)	2.9	2.6
Sodium Oxide (Na_2O)	0.2	0.2
Loss on Ignition (LOI)	8.1	7.9
Carbon (%C)	0.4	0.4
M.B.I (meq/100g)	8.4	8.0
SSA m^2/g	19.5	19.0
pH @10% Solids	5.5	5.0
M.O.R. (Dried @ 110°C) lbf/in^2	600	700
% Water Absorption 1120°C	8.2	9.0
% Water Absorption 1220°C	2.1	3.0
% Linear Shrinkage Dry-Fired 1120°C	3.5	3.2
% Linear Shrinkage Dry-Fired 1220°C	7.8	7.1

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PARTICAL SIZE ANALYSIS AND PROPERTIES

Typical Mean Values. These Do Not Represent a Specification.

	Mesh Size		VANTAGE® Grades	
	ASTM E-11	MICRONS	RC-30	RC-50
Typical mean % retained on individual sieves	30	600	97.8	99.9
	50	300	91.3	96.8
	80	180	84.0	88.6
	100	150	81.6	84.9
	200	75	72.7	68.4
	325	45	64.5	53.3
	≤400	≤38	60.5	50.1

SHIPPING/ORDERING INFORMATION

- Shipping Point: Huntingburg, IN
- Availability: Bulk, IBC, 50 lb Paper Bag
  Truck

CUSTOMER SERVICE

US & Canada: 1-800-243-9004
Fax: 1-800-243-9005

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