

FEATURES & BENEFITS

VANTAGE® specialty grade fire clays are natural blends of highly refractory kaolinitic and plastic illitic clays. When employed in foundry green sand systems, small additions of VANTAGE will improve moisture retention, provide excellent thermal performance and promote better casting quality.

VANTAGE is especially useful in green sand systems where water loss occurs through burn out or evaporation. The increased heat capacity helps cool the sand without significant moisture loss, thus reducing the overall variation. When employed in the metalcasting process VANTAGE also works synergistically with bentonite clay to increase green, dry and hot strength for improved stability during the pouring and cooling process. Its high PCE value also ensures that performance will not be diminished in repeated applications of high temperature casting. VANTAGE fireclay additions will help prevent or reduce metal penetration and burn-in casting defects..

All VANTAGE fire 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	
	UC-40	UC-10
Silicon Dioxide (SiO ₂)	58.1	65.0
Aluminum Oxide (Al ₂ O ₃)	26.0	16.5
Titanium Dioxide (TiO ₂)	1.2	0.9
Iron Oxide (Fe ₂ O ₃)	2.4	7.5
Calcium Oxide (CaO)	0.3	0.3
Magnesium Oxide (MgO)	0.7	1.0
Potassium Oxide (K ₂ O)	2.9	2.5
Sodium Oxide (Na ₂ O)	0.2	0.8
Loss on Ignition (LOI)	7.9	5.5
Carbon (%C)	0.3	0.2
M.B.I (meq/100g)	9.0	7.3
SSA m ² /g	19.5	20.2
pH @10% Solids	5.0	7.0

PARTICAL SIZE ANALYSIS AND PROPERTIES

Typical Mean Values. These Do Not Represent a Specification.

	Mesh Size		VANTAGE® Grades	
	ASTM E-11	MICRONS	UC-40	UC-10
Typical mean % retained on individual sieves	30	600	–	–
	50	300	–	–
	80	180	–	–
	100	150	–	–
	200	75	99.9	99.9
	325	45	99.7	99.0
	≤400	≤38	98.0	96.0

SHIPPING/ORDERING INFORMATION

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

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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