

ANHYDROUS ALUMINUM SILICATES – KAOLIN CLAYS

TYPICAL PHYSICAL PROPERTIES

TYPICAL PHYSICAL PROPERTIES	FLASH CALCINED (THERMO OPTIC)				CONVENTIONAL CALCINED			
	OPTIWHITE®	OPTIWHITE MX®	OPTIWHITE P®	30P®	ICECAP K®	ICEBERG®	NO. 50®	NO. 30®
pH	5.5	4.0			5.5		5.0	
Brightness, GE	91	89	83		92	93		85
Brightness, ISO	90	88	82		91	92		84
Particle Size, Av. Mi.	1.2 to 1.4				1.3	0.7		1.4
+325 Mesh Residue	0.15 Max.			0.2 Max.	.0010 - .02			0.05
% Free Moisture	0.5 Max.				0.25 Max.			0.5 Max.
(Particle Shape)	Amorphous				Thin Flat Plate			
Bulking Value	0.0545 gal./lb. or 0.4548 litre/kg.				0.0456 gal./lb. or 0.3805 litre/kg.			
Specific Gravity	2.2				2.63			
Refractive Index	1.62							
U.S. PATENTS	3,309,214	3,021,195						
APPLICATION INFORMATION ON REVERSE SIDE	<u>ANHYDROUS CHEMICAL PROPERTIES</u>				OPTIWHITE, OPTIWHITE MX, OPTIWHITE P, and 30P Produced by BURGESS Patented Calcination Process			
	Ignition Loss %0 – 1.0 Silica %51.0 – 52.4 Alumina %42.1 – 44.3 Titanium Dioxide %1.56 – 2.50 Iron Oxide %Trace							

SURFACE TREATED CLAYS

The surface of any of the Burgess products can be treated with silanes of various types either according to customer requirements or in the form of standard products. By selecting the proper aluminum silicate and applying the appropriate silane for a given resin or polymer system, new products can be formed with improved dispersion, electrical, hydrophobic and physical properties. In most instances the silane will act as a coupling agent to give these improvements. This allows the compounder or formulator the use of aluminum silicate advantages in compounds or coatings not ordinarily compatible with aluminum silicates, or additional loading in those already containing aluminum silicates. Our surface treated clays retain the physical and optical characteristics of the clays and gains the ability to improve compound properties. Information on clays treated for specific systems is available on request.

The suggestions and data contained in this bulletin are based on data which are believed to be reliable. They are offered in good faith, to be applied according to the user's own best judgment. Since operating conditions in the processor's plant are beyond our control, Burgess Pigment Company cannot assume responsibility for any risks or liabilities which may result from the use of its products. Likewise, no liability is assumed for any claimed patent infringement occurring by reason of any method or manner of use, or any product made by a consumer. While the Burgess Pigment Company guarantees the quality of its products, it cannot give any warranty regarding the results obtained by the use thereof.

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ISO 9001



Plant and Facilities in Sandersville, Georgia

**Thermo-Optic Flash Calcined
Aluminum Silicate Particles**



Anhydrous Aluminum Silicate Particle produced by patented process to achieve greater opacity, lower specific gravity, and amorphous particle characteristics. The process includes splitting and altering the crystalline lattice structure of alumina, the result of rapid removal of the water of hydration. Such changes are reflected in completely different characteristics never before associated with Aluminum Silicates.

TYPICAL USES AND CHARACTERISTICS

By selection of one or combination of these products a formulator can take advantage of the outstanding physical, optical, or chemical properties of each.

OPTIWHITE – (Thermo-Optic Aluminum Silicate) Optiwhite represents the most versatile pigment of the thermo optic series. The ability to retain whiteness and hiding when embedded in binders makes Optiwhite useful in paper coating, paints, rubber and plastics to extend TiO_2 or other costly pigments. Optiwhite offers excellent dispersion, good electricals, high hiding, and improved film properties.

OPTIWHITE MX – (Thermo-Optic Aluminum Silicate) Optiwhite MX is the highest hiding and tint strength contributor of the Optiwhite series. In addition, Optiwhite MX, as an efficient flattening agent, produces low uniform sheen with excellent sheen uniformity and touch-up on application.

OPTIWHITE P – (Thermo-Optic Aluminum Silicate) Optiwhite P is excellent in processing rubber, plastics and coatings with good dispersion characteristics. In many paint formulations, for example, Optiwhite P allows for reduction of TiO_2 levels and removal of some flattening agents. The specific gravity of Optiwhite, Tisyn, and Optiwhite P is 2.2. This should be taken into consideration in all formulations.

30-P – Patented product especially designed for polyvinyl chloride compounds. It combines ease of incorporation with unique uniformity of compound color, excellent electrical properties, and low specific gravity.

ICECAP K – (Calcined) Icecap K is an excellent extender for TiO_2 in coatings where a high Hegman grind is required. The low screen residue, due to the removal of agglomerates, makes it a leader in the field of calcined kaolins. Applications include wire and cable, molded and extruded rubber and plastic products, paper coatings, and furnish, and paints. Icecap K has good electricals, low compression set, and low water absorption.

ICEBERG – (Calcined) Iceberg is the original workhorse in the Burgess Pigment calcined clay group. It is used in paints, paperboard, rubber and plastics and other various applications similar to Icecap K.

NO.50 – (Calcined) A fine particle sized, high brightness clay. High oil demand creates porosity for improved dry hiding in coatings.