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## Onyx Elite<sup>®</sup> 431 Alumina Trihydrate

## DESCRIPTION

Onyx Elite<sup>®</sup> 431 initiates a new standard for alumina trihydrate fillers. Onyx Elite<sup>®</sup> 431 is a color controlled high-purity, organic-free Alumina Trihydrate specifically designed to provide the translucency, depth of pattern and soft white color that are so important to the cast polymer industry.

Onyx Elite 431 is a high brightness product exhibiting a unique particle size distribution that provides the best combination of viscosity and air release for cast polymer. A closely controlled coarse fraction top size with a large fine fraction yields rapid dispersion in resin, excellent mold flow and wet-out characteristics, resulting in minimal porosity, even pigmentation, and excellent filler reinforcement throughout the molded part.

Onyx Elite 431 is a low surface area, medium particle size flame retardant and smoke suppressant Alumina. A complete range of surface modifications is available to aid in processing and enhance physical properties.

## TYPICAL CHEMICAL ANALYSIS

AI(OH) <sub>3</sub> , %	99.6
SiO <sub>2</sub> , %	0.008
Fe <sub>2</sub> O <sub>3</sub> . %	0.004
Na <sub>2</sub> O (total), %	0.2
Na <sub>2</sub> O (soluble), %	0.02
Loss on ignition (550°C), %	34.6
Free Moisture (105°C), %	0.3

## **TYPICAL PHYSICAL PROPERTIES**

Screen Analysis	
% on 100 mesh	0
% on 200 mesh	0.01
% on 325 mesh	1.0
% through 325 mesh	99
% less than 10 microns	63
Median Particle Diameter, microns	8
Surface Area (m <sup>2</sup> /gm)*	2.0
Specific Gravity (gm/cm <sup>3</sup> )	2.42
Bulk Density – loose (lbs/ft <sup>3</sup> )	0.78
Bulk Density – packed (gm/cm <sup>3</sup> )	1.35
Color-L	90

\*As measured with a Quantachrome monosorb surface area analyzer (BET)

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