

# Vertex<sup>®</sup> 100SA

## MAGNESIUM HYDROXIDE

### DESCRIPTION

Vertex<sup>®</sup> magnesium hydroxide products provide excellent fire retarding and smoke suppression performance for the thermoplastic or crosslinked polymer compounds. At 330°, they decompose in an endothermic reaction to form water and magnesium oxide. Vertex 100SA is an aminosilane-treated product that provides superior fire performance and enhanced mechanical properties when used to make fire-rated polymeric compounds. The silane treatment promotes coupling of the magnesium hydroxide to the polymer used, providing high dispersion quality and thus enhanced compound performance especially for the high-loading applications. Vertex 100SA can be used in polyolefins and polyamides such as Nylon 6 and Nylon 6,6.

### GENERAL PHYSICAL AND CHEMICAL PROPERTY DATA

Physical Property	Unit	Typical Value
Specific Gravity	g	2.36
Color		White
Refractive Index		1.58
Hardness	Mohs	2.5
325 Mesh Residue	%	≤1.0
Median Particle Size by Sedigraph	Microns	1.1
Median Particle Size by Laser Light Scattering	Microns	1.5
Specific Surface Area (BET)	m <sup>2</sup> /g	14
Free Moisture @105°C	%	≤0.5

  

Chemical Property	Unit	Typical Value
Magnesium Hydroxide, Mg(OH) <sub>2</sub>	%	≥99 (untreated base)
Calcium	%	≤0.6
Chloride	%	≤0.3
Iron	%	≤0.08
Loss on Ignition (1200°C)	%	≥31 (untreated base)

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