

# Zerogen<sup>®</sup> 50 SV

## MAGNESIUM HYDROXIDE

### DESCRIPTION

Zerogen<sup>®</sup> magnesium hydroxide products provide excellent fire retarding and smoke suppression performance for thermoplastic or crosslinked polymer compounds. At 330°, they decompose in an endothermic reaction to form water and magnesium oxide. Zerogen products are characterized by high chemical purity, thus suitable for use in compound applications where excellent electrical properties are needed, such as in cable insulation materials.

Zerogen 50 SV is a magnesium hydroxide with a proprietary surface treatment that provides superior fire performance when used to make fire-rated EVA compounds. The proprietary surface treatment improves smoke suppression efficiency of magnesium hydroxide and increases limiting oxygen index (LOI) of the EVA compound. As a result, lower magnesium hydroxide loading level can be used leading to enhanced rheological and processing performance, and improved compound mechanical properties. The surface treatment also promotes compatibility of the magnesium hydroxide with the polymer and high quality of dispersion.

### 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	%	≤0.5
Median Particle Size by Sedigraph	Microns	1.0
Specific Surface Area (BET)	m <sup>2</sup> /g	7
Free Moisture @105°C	%	≤0.5

  

Chemical Property	Unit	Typical Value
Magnesium Hydroxide, Mg(OH) <sub>2</sub>	%	≥99 (untreated base)
Calcium	%	≤0.2
Chloride	%	≤0.1
Iron	%	≤0.01
Loss on Ignition (1200°C)	%	≥31 (untreated base)

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