

## H-TEC™ Magnesium Calcium Carbonate Hydroxide

## HTM C9

### Typical Physical Properties

Mean Particle Size (microns)	0.6
Top Size -99% Less Than (microns)	15
Free Moisture (%) (max)	0.5
Loss on Ignition (%)	54.0
Surface Area (m <sup>2</sup> /g)	>10
Specific Gravity	2.5
Oil Absorption	40
Refractive Index	1.6
TAPPI Brightness	95+
Processing Temperature (°C)	250

A low-cost natural mineral, a consistent mixture of huntite, a magnesium calcium carbonate [Mg<sub>3</sub>Ca(CO<sub>3</sub>)<sub>4</sub>] and hydromagnesite, a hydrated magnesium hydroxycarbonate [Mg<sub>4</sub>(CO<sub>3</sub>)<sub>3</sub>(OH)<sub>2</sub>•3H<sub>2</sub>O]. It is a bright white platy material with bimodal particle size distribution from 0.5 micron to <15 microns. HTM C9 can tolerate processing temperatures of 250°C, which is above the range for ATH.

As a successful flame retardant additive for PVC, EPDM and polyolefins, it has efficiency in the same range of magnesium hydroxide, sometimes better, but with lower cost and often processing advantages. Under fire exposure conditions, it absorbs heat and loses 54% of its weight as water and carbon dioxide to provide flame retardancy (typical loadings of 60% in polyolefins) and smoke suppression. Moreover, its platy character results in an effective fire barrier. Synergism with ATH has been reported.

Its bright white character allows use as extender for TiO<sub>2</sub>, with a good surface finish.

### Typical Chemical Properties

MgO%	36.5
CaO%	10.5
Fe <sub>2</sub> O <sub>3</sub> %	<0.1
SiO <sub>2</sub> %	0.4

**APPLICATIONS:** Used in polyolefins and other polymers processed below 250°C.

**PRODUCT VARIATIONS:** This family of products is available in a variety of surface treatments to suit specific requirements. Please contact your sales representative for the HTM C9 product that is best for your application.

**HEALTH AND SAFETY:** For specific information refer to MSDS

**PACKAGING:** Standard packaging is 50 lb. bags on 2000 to 3000 lb. pallets. Some custom packaging available.

August 09

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