

# CHARLES B. CHRYSTAL CO., INC

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INDUSTRIAL MINERALS SINCE 1897

## MICRONIZED and EXPANDED VERMICULITE

This is a product produced by thermal exfoliation of natural occurring Vermiculite. The expanded particles are further processed to separate the Vermiculite sheet to form a platy, dry, delaminated Vermiculite. It can be used in many polymers to improve the HDT, without significant loss in impact strength or flexibility thereby reducing the need for other more expensive additives. This high aspect ratio, chemically stable material has other potential uses in seed protection, friction products and similar applications.

### CHEMICAL CHARACTERISTICS:

SiO <sub>2</sub>	44
Al <sub>2</sub> O <sub>3</sub>	19
Fe <sub>2</sub> O <sub>3</sub>	9
MgO	27

### PHYSICAL CHARACTERISTICS:

Combustion Temp	Will not burn
pH	7.0-7.1 (in water)
Cation Exchange Capacity	50-150 M.eq/100g (typically)
Moisture	<2.5% (total of free and intrinsic moisture)
Heat Related Loss	<1.6% weight loss at 800 degrees C
Color	Tan or off white
Particle Shape	Sheet Platelets
Hardness	1.5-2.0 mohs
Density	6.0-12.0 #/ft <sup>3</sup>
Aspect Ratio	Up to 20,000
Fusion Temperature	Over 2,200 degrees F

### Particle Size Distribution (typical):

D90	18 Micron
D50	8 Micron
D10	2 Micron

ORIGIN: USA