

# CHARLES B. CHRYSTAL CO., INC

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INDUSTRIAL MINERALS SINCE 1897

## SPHERE KAM 45

Kam Grade 45 is produced by the selective milling of expanded Volcanic Ash followed by chemical fusion and air classification. A naturally occurring glass, it is inert, tasteless, odorless and only slightly soluble in water or mineral acids.

Permeability Flowrate (volume basis)----- 85 to 115  
50 is available upon request.

Filter Cake Density (pounds per cubic foot)--- 14.5 to 15.5

**EFFECTIVE VOID VOLUME (PER 100 POUNDS) = 5.0 CUBIC FEET**

## CHEMICAL ANALYSIS

Crystalline Silica	Not detectable
Amorphous Silica (SiO <sub>2</sub> )	72.8%,
Al <sub>2</sub> O <sub>3</sub>	14.6%,
K <sub>2</sub> O	5.8%,
Na <sub>2</sub> O	3.9%,
Fe <sub>2</sub> O <sub>3</sub>	0.75%,
CaO	0.28%,
CuO	0.00005%,
Hg	Not detectable
As	Not detectable

## SOLUBLES

In boiling water for one hour	0.88%
In strong mineral acid for one hour	1.91%,
In strong Alkali (Sodium Hydroxide) for one hour	18.6%
Acid soluble Fe <sub>2</sub> O <sub>3</sub> for one hour (1% HCL)	0.047%
<b>Acid soluble CaO for one hour (1% HCL)</b>	

## PHYSICAL PROPERTIES

### **PARTICLE SIZE ANALYSIS (Based on 1000-gram sample)**

<u>U.S. STANDARD</u> <u>SIEVE</u>	<u>PERCENT LIMITS</u> <u>BY WEIGHT</u>		<u>PERCENT LIMITS</u> <u>BY VOLUME</u>	
	<u>LOW</u>	<u>HIGH</u>	<u>LOW</u>	<u>HIGH</u>

100	3.0	18.0
200	22.0	60.0
325	17.0	41.0
- 325 (PAN)	6.0	24.0

### **PHYSICAL CHARACTERISTICS**

Bulk Density	8.5 to 9.5 lbs./cu. ft.
Specific Gravity	2.34
Color	Off White