



Specialty MINERALS

Your Technology Resource™

▼ Specialty PCC



Specialty Minerals Inc.

DS-2009

▼ ViCALity ALBAGLOS™

USP / FCC Precipitated Calcium Carbonate

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ViCALity™ PCC Products:

ViCALity ALBAGLOS™ Precipitated Calcium Carbonate (PCC) is one of a family of low lead calcium carbonates available in a wide variety of sizes and shapes to meet the needs of formulators of foods, drugs, nutritionals and personal care products. Containing less than 500 ppb lead, the ViCALity™ PCCs are suitable for many applications that must meet the lead requirements of California Proposition 65.

ViCALity™ PCCs meet and exceed the requirements for Calcium Carbonate of the United States Pharmacopeia 24 and of the Food Chemicals Codex, Fourth Edition. All are certified as Kosher. Calcium carbonate is Affirmed GRAS (Generally Recognized As Safe) by the US FDA (21 CFR 184.1191) with no limitations other than good manufacturing practices. This allows the use of calcium carbonate as both a direct and indirect food additive. ViCALity™ PCC products are manufactured in the Specialty Minerals plant in Adams, MA under stringent quality assurance procedures and good manufacturing practices.

ViCALity ALBAGLOS™ PCC:

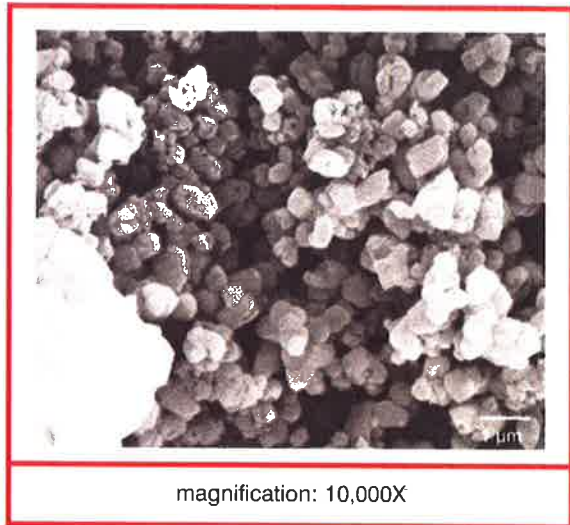
ViCALity ALBAGLOS™ PCC is a low lead calcite which is a mixture of a 0.7 micron prismatic particle with 15% of a 3 micron cubic particle. The larger particle is added to improve flow of the powder and of high solids dispersions.

CalEssence® 80 PCC is the ultra-low lead equivalent of ViCALity ALBAGLOS™ PCC.

Characteristics:

- Small particle size
- High surface area
- Moderately high oil absorption
- Low density
- Very mild abrasive
- Bimodal for improved flow
- Less than 500 ppb lead
 - Good for most Proposition 65 uses
- High elemental calcium level
 - ~40% calcium
- High bioavailability - equal to milk calcium
- Economical in use
- No calories, carbohydrates or fats
- Non-dairy, lactose-free

Scanning Electron Micrograph:



Applications:

ViCALity ALBAGLOS™ PCC is the best choice when a very small particle size is needed, but where high solids liquids which were formulated using ViCALity ALBAFIL™ PCC showed flow problems. In most solid foods, the larger Heavy and Extra Heavy grades are small enough to remain undetected in taste, and taste tends to improve as the particle size increases. However, in some product forms, especially liquids, ice creams and some soft, chewy forms, the presence of those larger particles may be apparent. In those instances, and in addition, when the flow of a high solids liquid is a problem, ViCALity ALBAGLOS™ PCC may be the solution. The high surface area of this grade also makes it an excellent detackifier for natural rubber. Its mild abrasivity suits it for toothpastes for dentures and bridgework.

Some uses for ViCALity ALBAGLOS™ PCC are:

- Frozen dairy products
- Liquid meals, diet drinks & infant formulas
- Soy or milk beverages
- Soft chew calcium supplements
- Liquid or soft chew antacids at lower dosages
- Antacid and calcium supplement tablets, but only when a large tablet is wanted
- Solid confectionery dosage forms
- Specialty toothpastes for bridgework
- Natural rubber detackification
 - Gloves, condoms, slab, crumb, dip

If when using ViCALity ALBAGLOS™ PCC, some unacceptable separation of the larger, flow-enhancing particles occurs, then ViCALity ALBAFIL™ PCC should be tried.

Typical Physical Properties

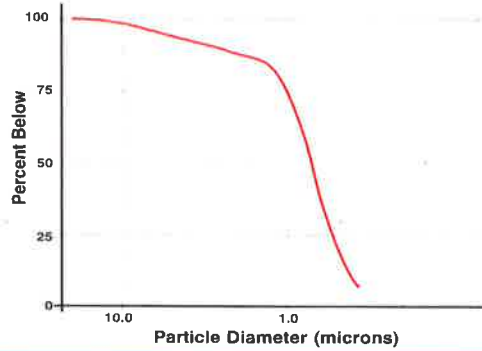
Crystal habit	Calcite
Particle Shape	Prismatic/Cubic Blend
Particle Size, median, microns	0.8
mode, microns	0.7
Surface Area, meters ² /gram	6.4
Oil Absorption, grams oil/100 grams	29
Tapped Density, grams/cc	0.57
pounds/ft ³	35.6
Bulk Density, grams/cc	0.25
pounds/ft ³	15.6
Specific Gravity	2.71
pH	9.8
Moisture, %	0.2
Dry Brightness Hunter Y, Rd value	.98
Lead, parts per billion	< 500
Solubility, in water, pH 7	Insoluble
in acid	Soluble

Note:

These are typical values, and should not be used to set specifications.

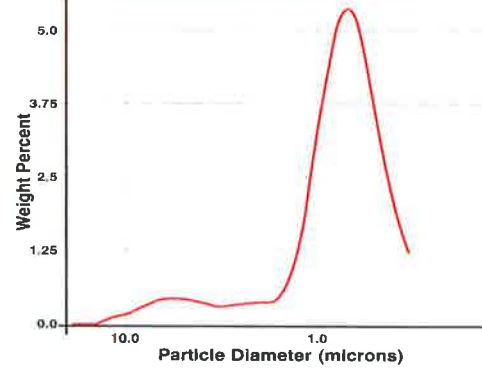
Cumulative Particle Size Distribution

Total % by weight below each micron size



Particle Size Distribution

% by weight at each micron size



Dispersion and Slurry Viscosity:

ViCALity ALBAGLOS™ PCC is one of the more difficult grades to disperse. Use high shear, with high solids, to achieve the small particle size.

After high shear dispersion for 10 minutes, the Brookfield RVT viscosity of a slurry in water, measured at 20 rpm, is:

30% solids	1,300 cps
40% solids	4,200 cps
50% solids	10,150 cps

If problems are encountered in preparing high solids slurries, an appropriate pigment dispersant should be used.

Product Code: 100-0540-3

Packaging:

ViCALity ALBAGLOS™ PCC is packaged in 50 pound, three-ply kraft bags. The standard shipping unit is a 52" x 42" 2-way pallet of 50 bags, a total of 2,500 pounds. Pallets include slipsheets and shrinkwrap. Semi-bulk packaging, typically in 2,000 pound sacks, is also available. Contact Inside Sales or your SMI Representative for details.

FDA Codes:

The Specialty Minerals plant in Adams, MA is registered with the US FDA as a Drug Establishment. The registration number for the plant is 1214544. The National Drug Code (NDC) for ViCALity ALBAGLOS™ PCC is 053004-0540-3 for product supplied in 50 pound bags.

Specialty Minerals Inc.

35 Highland Avenue
Bethlehem, PA 18017

For order placement:

Customer Service – toll free: 877-684-7627
Direct dial: 610-997-8306
Fax: 610-861-5179

Visit Our Website:

www.mineralstech.com

For Information and Samples:

Inside Sales – toll free: 877-229-9653
Direct dial: 610-997-8300
Fax: 610-882-9846
E-mail: spcc.sales@mineralstech.com

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