

Flo-Gard™ FF Silica Anticaking Agent

Carrier and Food

Flo-Gard™ FF anticaking agent is an amorphous silicon dioxide specifically designed for fine particle-sized food ingredients. *Flo-Gard* FF silica absorbs high levels of oils and fats, and produces an excellent free-flowing product.

Properties and Characteristics

Flo-Gard FF silica is an anticaking agent specifically designed for fine particle-sized food ingredients. *Flo-Gard* FF silica provides a combination of small particles and high absorbency. The unique median particle size of *Flo-Gard* FF silica, 18 microns by Laser Diffraction, permits better coverage of fine particle-sized food ingredients. The high absorbency of *Flo-Gard* FF silica helps keep ingredients with high levels of fat or oil, free-flowing. *Flo-Gard* FF is a hydrated silica, with a neutral pH, and is odorless and tasteless, making it compatible with a variety of ingredients.

Certifications and Approvals

- **Food and Drug Administration (FDA), Title 21 Food and Drugs, Code of Federal Regulations (CFR):**
 - As an anticaking agent under **172.480**, but the amount cannot exceed 2% by weight of the food product.
 - Under **133.146** (Grated Cheese), but the amount cannot exceed 2% by weight of the food.
 - Under **160.105** and **160.180** (Dried Eggs and Dried Egg Yolks) but the amount cannot exceed 1% maximum of the finished food weight. There is no limit on the weight % *Flo-Gard* FF silica when it is used to carry flavors that are to be added to other food products.
 - Under **172.230** (Flavoring Substances), whereas the *Flo-Gard* FF silica content of the dried flavor put into the final food product cannot exceed 2% by weight of the final food product.
- Food Chemicals **CODEX** for silicon dioxide for use in food applications.
- **Kosher** approved for Passover and year-round use.



Applications

Fine salt products
Spices and seasonings
Powdered sugar products
Chocolate powders
Dairy & non-dairy creamers
Powdered drink mixes
Tabletting applications

Flo-Gard FF

Silica Anticaking Agent

Typical Properties

	Flo-Gard FF
DBP Oil absorption, mL/100g	210
Moisture, as packaged, Wt%	5.0
pH	7.0
Salt (as Na ₂ SO ₄) content, Wt%	2.0 maximum
SiO ₂ Hydrate, %	87.0 maximum

Anticaking, Partitioning, Low Dust

Flo-Gard FF silica is highly porous, so it quickly absorbs liquids and oils in the food ingredients preventing caking. *Flo-Gard* FF silica is designed to provide more particles per unit weight of flow agent providing excellent partitioning. This is important for improving flowability, especially with fine particle-sized food ingredients. *Flo-Gard* FF silica generates low dust during handling, because the small particles form loose agglomerates that settle quickly when scooped or dumped from the bag into the mixer. *Flo-Gard* FF silica disperses very easily when mixed into food ingredients.

Samples

Samples are available upon request from Customer Service.

Storage

To ensure product integrity, PPG recommends that our silica products be stored under dry, clean conditions and protected against exposure to other substances. Since silica may pick up moisture, we also recommend that products that are stored for more than one year from the date of manufacture be re-tested for moisture content. There is no shelf life limit when stretch-wrapped palletized units or bags are kept under the above stated conditions. Pallets should not be double-stacked.

Safety and Health Effects

PPG Industries recommends that, before use, anyone using or handling this product thoroughly read and understand the information and precautions on the label, as well as in other product safety publications such as the Material Safety Data Sheet. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be. The products mentioned herein can be hazardous if not used properly. Like all potentially hazardous materials, this product must be kept out of the reach of children.

Preferential Moisture Absorption

The surface of *Flo-Gard* FF silica is very hydrophilic, absorbing moisture quickly. In most cases, *Flo-Gard* FF silica will absorb moisture from the atmosphere more readily than a food ingredient preventing caking of the food product.

Packaging

Standard packaging as follows:

Product	Net weight		Bag Construction
	lb	kg	
<i>Flo-Gard</i> FF	44	20	Multi-Wall Paper
<i>Flo-Gard</i> FF	600	272	FIBC

Please consult with Silica Customer Service or your Silica Sales Representative regarding additional packaging options, including custom package sizes and bulk shipments in Flexible Intermediate Bulk Container (FIBC), truckload, or railcar units.

Visit www.ppgsilica.com for MSDS and product specifications.



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