



HYDROPHILIC FUMED SILICA

CAB-O-SIL® M-5F



CAB-O-SIL M-5F food-grade silicas are high-purity materials that can act as carriers, flavor masking, anti-settling, thickening, anti-caking, and fat substitution additives in food applications.

CAB-O-SIL M-5F food-grade fumed silicas are characterized by:

- High purity, food-grade silica quality;
- Tasteless, colorless, odorless;
- Hydrophilic surface;
- Low bulk density.

Application Information

Carrier, Flavor Masking Agent

CAB-O-SIL food-grade fumed silicas adsorb liquids to produce dry powders that can be easily mixed with other solid ingredients. At higher concentrations, these grades can act as flavor masking agents.

Microencapsulation

CAB-O-SIL food-grade fumed silicas can encapsulate volatile compounds, such as flavors, reducing evaporation rates.

Spray Drying Aid

CAB-O-SIL food-grade fumed silicas can reduce clogs in the spray dryer atomizer, deliver higher powder recovery, and increase throughput by facilitating lower spray dryer outlet temperatures.

Lipid Substitution

CAB-O-SIL food-grade fumed silicas can promote the substitution of fat contained in foods by:

- a) facilitating a more homogeneous lipid distribution to enhance the fat's effectiveness; and
- b) acting as an effective stabilizer of Pickering emulsions that replace fat fractions.

Thickening, Anti-Settling, and Emulsification

CAB-O-SIL food-grade fumed silicas are effective thickening, emulsification, gelling, and anti-settling agents with low sensitivity to temperature and pH.

Free Flow, Transparency, and Storage Stability

CAB-O-SIL food-grade fumed silicas act as a spacer and moisture adsorbent, reducing lump formation and crystallization to facilitate free flow, exact dosing, and storage stability.



CAB-O-SIL® M-5F

Performance Characteristics

| FEATURE | CAB-O-SIL M-5F FUMED SILICA | CAB-O-SIL EH-5F FUMED SILICA |
|--------------------|--------------------------------|---------------------------------|
| Adsorption | *** | **** |
| Microencapsulation | *** | **** |
| Dispersability | **** | *** |
| Anti-setting | *** | *** |
| Anti-caking | *** | *** |
| Transparency | *** | **** |
| Surface Area | 200 m²/g | 380 m²/g |
| | | |

Performance: **** best *** good

Packaging Options

CAB-O-SIL M-5F fumed silicas are packaged in multi-wall Kraft paper bags and in poly-shrouded units containing 18 x 10 kg paper bags (180 kg net weight).

Material Safety Data Sheet

A Material Safety Data Sheet for these products may be obtained by contacting the Cabot Corporation office in your region or can be downloaded from our website at http://www.cabot-corp.com/Silicas-And-Aluminas/Food

Regulatory Compliance

A regulatory compliance information package may be obtained by contacting the Cabot Corporation office in your region or can be downloaded from our website at http://www.cabot-corp.com/Silicas-And-Aluminas/Food

Product Sales Specifications

Sales specifications for these products may be obtained by contacting a sales or technical service manager at the Cabot Corporation office in your region.



CABO

cabotcorp.com

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