

CAB-O-SIL® M-5DP

CAB-O-SIL M-5DP untreated fumed silica is a synthetic, amorphous silica that complies with the pharmacopoeia monographs:

"Colloidal Silicon Dioxide" in the U.S. Pharmacopeia/National Formulary

"Silica, Colloidal Anhydrous" in the European Pharmacopoeia

Application Information:

Tablets:

For tableting CAB-O-SIL M-5DP functions as a glidant or free-flow additive to provide improved tablet production efficiencies and improved tablet uniformity and strength.

In the tableting process the use of CAB-O-SIL M-5DP results in more consistent feed rate of the powders into the tablet press allowing higher press operating speeds while maintaining tablet uniformity. With the use of CAB-O-SIL M-5DP lower press compression force is required reducing equipment wear and yielding uniform tablets at lower tablet hardness.

The use of CAB-O-SIL M-5DP in the formulation results in tablets that have:

- Increased hardness and strength hence reduced breakage.
- Decreased weight variation.
- Increased consistency of thickness and density.



Capsules:

CAB-O-SIL M-5DP improves the free-flow of powders and granulations facilitating filling of capsules.

Compliance:

Certificates of Analysis for every lot of CAB-O-SIL M-5DP fumed silica contain results of compliance testing for the current monograph requirements in the U.S. Pharmacopeia/National Formulary and European Pharmacopoeia.

Compliance testing is performed at an external laboratory certified Good Laboratory Practices (cGLP). CAB-O-SIL M-5DP is manufactured using Good Manufacturing Practices as appropriate for a pharmaceutical excipient at Cabot's Rheinfelden, Germany facility.





Performance Comparisons:

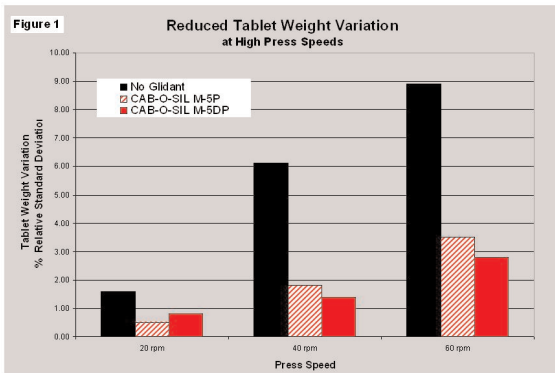


Figure 1 compares the weight variation of Ibuprofen tablets containing 0.5% by weight CAB-O-SIL M-5P or M-5DP to Ibuprofen tablets not containing a glidant. Tablets containing fumed silica have significantly lower weight variation especially at higher press speeds. At high press speeds tablets not containing a glidant have unacceptably large weight variation. The use of CAB-O-SIL M-5P or M-5DP allows faster press speeds while achieving tablet weights within acceptable tolerances.

Figure 2 demonstrates that performance of CAB-O-SIL M-5P and M5-DP are comparable. Both products significantly improve tablet properties and processing.

With its higher bulk density, CAB-O-SIL M-5DP offers:

- Lower freight and storage costs
- Easier handling

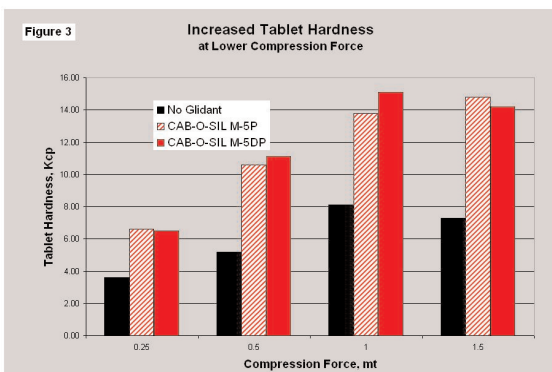
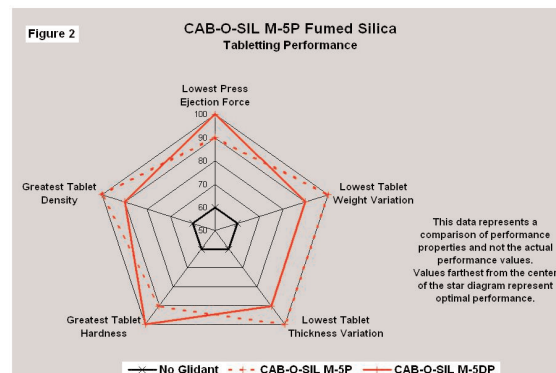


Figure 3 compares hardness of Ibuprofen tablets containing either 0.25% CAB-O-SIL M-5P or M-5DP to tablets with no glidant. Regardless of compression force, tablets containing CAB-O-SIL M-5P or M-5DP have significantly higher hardness than without a glidant. With the use of CAB-O-SIL M-5P or M-5DP lower press compression force is required to achieve desired tablet hardness reducing equipment wear.



Packaging Options:

CAB-O-SIL M-5DP is packaged in multi-wall Kraft paper bags. Product is available in 20-kg bags and is available in 18 x 20 kg poly-shrouded units.

Material Safety Data Sheet:

A Material Safety Data Sheet for this product may be obtained by contacting the Cabot Corporation office in your region or can be downloaded from our website:

www.cabot-corp.com

Consult our website for current information on the following for this product:

[Bovine Spongiform Encephalopathy](#)

[Allergens](#)

[Nutritional Value](#)

[Residual Solvents](#)

[Genetically Modified Organisms](#)

[Microbial Contamination](#)

[Product Shelf-Life](#)

[Food and cosmetics usage](#)

Product Sales Specifications:

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

This information is provided as a convenience and for informational purposes only. No guarantee or warranty as to this information, or any product to which it relates, is given or implied. Cabot disclaims all warranties express or implied, including merchantability or fitness for a particular purpose as to (i) such information, (ii) any product or (iii) intellectual property infringement. In no event is Cabot responsible for, and Cabot does not accept and hereby disclaims liability for, any damages whatsoever in connection with the use of or reliance on this information or any product to which it relates.

NORTH AMERICA	EUROPE	ASIA/ PACIFIC	SOUTH AMERICA	CHINA
Cabot Corporation Business and Technical Center 157 Concord Road Billerica, MA 01821-7001 USA Customer Service: Phone: (800) 526-7591 Technical Service: Phone: +1 (978) 663-3455 Phone: (800) 462-2313 Fax: +1 (978) 670-6167	Cabot Interleuvenlaan 15 i B-3001 Leuven BELGIUM Tel: +32 16 39 24 00 Fax: +32 16 39 24 44	Cabot Specialty Chemicals Level 21 MNI Tower 2 11, Jalan Pinang 50450 Kuala Lumpur MALAYSIA Phone: +60 3 2164 8352 Fax: +60 3 2161 0253	Cabot Latin America Division Rua do Paraiso, 148 - 5th Floor Paraiso CEP 04103-000, São Paulo SP BRAZIL Phone: +55 11 2144 6400 Fax: +55 11 3253 0051 Customer Service: Phone: +0800 195959	Cabot (China) Limited 558 Shuangbai Lu Wujing Shanghai 201108 CHINA Phone: +86 21 5175 8800 Fax: +86 21 6434 5532