

Dow Corning® 9701 Cosmetic Powder

FEATURES

- No agglomeration
- Free flowing fine particles

BENEFITS

- Ease of use in various media
- Silky-powdery skin feel
- Wrinkle masking
- Superior dispersion quality
- Sebum absorption
- Absorption of various fluids and oils
- Enhanced viscosity in W/Si systems

COMPOSITION

- Silicone Elastomer Powder with silica treated coating

INCI NAME: Dimethicone/Vinyl Dimethicone Crosspolymer (and) Silica

APPLICATIONS

- Face and body creams, lotions and gels
- Color cosmetic liquid foundations
- Color cosmetic loose-, pressed- and compact-powders (eye shadow, make-up)
- Sun care
- Many other potential applications (example: lip sticks, bronzing products, hair care)

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

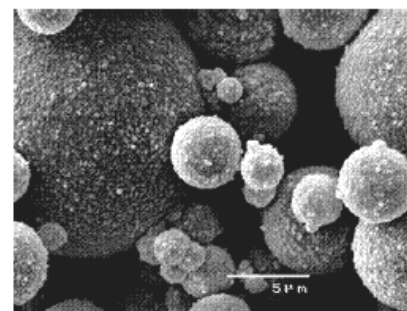
CTM ¹	Property	Unit	Value
0176B	Appearance		White powder
1151B	Average particle size	µm	1-10
1289A	Bulk density		0.3-0.4

1. CTM: Corporate Test Method, copies of CTMs are available on request.

DESCRIPTION

Dow Corning® 9701 Cosmetic Powder is a silicone powder with silica treated coating. The unique composition enables the powder to flow freely without agglomeration, thus providing superior handling and processing ease. Easy dispersion in different media - even in the presence of pigments - makes it possible to introduce the product into a wide variety of skin care, sun care and color cosmetic formulations (including hydrogels) without using sophisticated processes or equipment. The design of the powder also provides wrinkle masking benefits as well as superior skin feel and fluid/oil/sebum absorption capabilities.

FIGURE 1: S.E.M. PICTURE OF DOW CORNING 9701 COSMETIC POWDER.



Small Silica particles (white appearance) attached to the surface of larger Silicone Elastomer Powder particles. Under the participation of LVMH labs.

Threshold values for sensory perception in different systems: For studied water-in-silicone emulsion: 4%. For studied hydrogel formulation: 3%. For studied silicone- in-water emulsion: 3% when using an organic co-emulsifier and 2% when using a silicone co-emulsifier.

HOW TO USE

Dow Corning[®] 9701 Cosmetic Powder is easy to use. The powder can be added directly to the oil phase ingredients without doing a premix in another fluid. For powdery type formulations, *Dow Corning* 9701 Cosmetic Powder can be grinded directly with other powders. See formulation examples.

HANDLING PRECAUTIONS

Product safety information required for safe use is not included. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The material safety data sheet is available on the Dow Corning website at www.dowcorning.com. You can also obtain a copy from your local Dow Corning sales representative or Distributor or by calling your local Dow Corning Global Connection.

WARNING: *Dow Corning* 9701 Cosmetic Powder is a fine powder and needs to be handled with certain precautions. Avoid dust accumulation. Eliminate sources of ignition. Product can build up static electricity which may be discharged as a spark. If this product is added to a solvent, precautionary measures need to be taken to eliminate sparks.

USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, this product has a usable life of 2 years from the date of production.

PACKAGING INFORMATION

The product is available in 10kg bags.

Samples are available in 500gr in carton boxes.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, www.dowcorning.com or consult your local Dow Corning representative.

WARRANTY INFORMATION

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

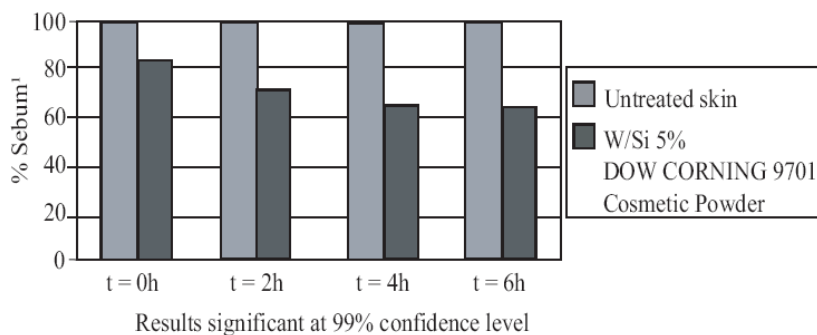
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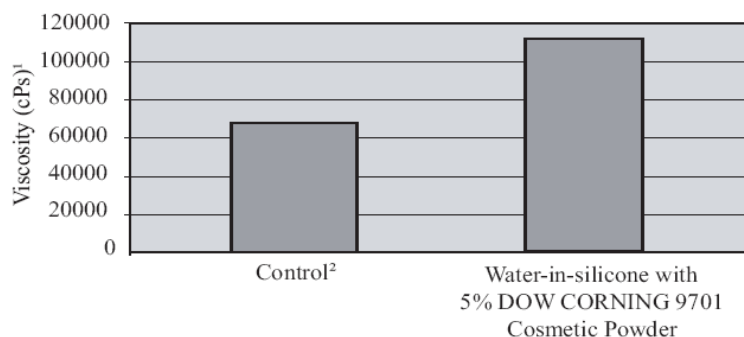
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Figure 2: Sebum absorption of 5% Dow Corning 9701 Cosmetic Powder in water-in-silicone cream



1. Sebumeter SM810

Figure 3: Viscosity of water-in-silicone cream



1. Brookfield DV II Spindle RV-07 at 5 rpm.
2. Same formulation without DOW CORNING 9701 Cosmetic Powder

Wrinkle Masking Effect study results (Experimental Protocol Bio-HC Ref.EFL of 03/03/2003):

Product 1: Water-in-silicone cream with 4% of *Dow Corning* 9701 Cosmetic Powder (see table 1). The evaluation of the smoothing effect on volunteers Crow's foot wrinkles showed an improvement of wrinkles up to 84% and for 75% of subjects with a significant total mean decrease of 28% ($p < 0.01$) for 21 panelists.

Product 2: Water-in-silicone cream with 10% of *Dow Corning* 9701 Cosmetic Powder. The evaluation of the smoothing effect on volunteers Crow's foot wrinkles showed an improvement of wrinkles up to 72% and for 75% of subjects with a significant total mean decrease of 16% ($p < 0.01$) for 21 panelists

Formulations:**Table 1: wrinkle masking water-in-silicone cream CPF 00653.**

Ingredient	Wt. %	Trade name/supplier
Phase A		
1. Dimethicone/Vinyl Dimethicone Crosspolymer and Silica	4	<i>Dow Corning</i> 9701 Cosmetic Powder
2. Cyclopentasiloxane and PEG/PPG-18/18 Dimethicone	10	<i>Dow Corning</i> [®] 5225C Formulation Aid
3. Cyclopentasiloxane	16	XIAMETER [®] PMX-0245 Cyclopentasiloxane
4. PPG-3 Myristyl ether	0.5	Promyristyl PM-3/Croda, Inc.
Phase B		
5. Distilled water	Up to 100	
6. Glycerine	5	
7. Sodium chloride	2	Sodium chloride
8. Propylene Glycol, Diazolidinyl Urea, Methylparaben and Propylparaben	0.5	Germaben II/ISP
Procedure:		
1. Mix phase A ingredients together.		
2. Mix Phase B ingredients together.		
3. Add slowly phase B to phase A under strong mixing.		
4. Homogenize using a high shear mixer (Ultraturrax [®] or Silverson [®] type).		

Table 2: Shimmer Soft Powder Perfume CPF 00651.

Ingredient	Wt. %	Trade name/supplier
1. Dimethicone/Vinyl Dimethicone Crosspolymer and Silica	88	<i>Dow Corning</i> 9701 Cosmetic Powder
2. Fragrance	10	CelineCe/Symrise
3. Calcium Sodium Borosilicate and Titanium Dioxide	2	Reflecks (TM) Pinpoints of Pearl/Engelhard Corporation
Procedure:		
Mix ingredients at room temperature with an appropriate blender.		

Table 3: Powdery light silicone-in-water cream CPF 00652.

Ingredient	Wt. %	Trade name/supplier
Phase A		
1. Cyclopentasiloxane	17	XIAMETER [®] PMX-0245 Cyclopentasiloxane
2. PEG-12 Dimethicone	4	<i>Dow Corning</i> [®] 5329 Performance Modifier
3. Dimethicone/Vinyl Dimethicone Crosspolymer and Silica	4	<i>Dow Corning</i> 9701 Cosmetic Powder
4. Lauryl PEG/PPG-18/18 Methicone	0.5	<i>Dow Corning</i> [®] 5200 Formulation Aid
Phase B		
5. Deionised water	72.5	
Phase C		
6. Polyacrylamide, C13-14 Isoparaffin and Laureth-7	2	Sepigel [®] 305/Seppic S.A.
Procedure:		
1. Mix phase A ingredients together.		
2. Add phase A to phase B with high speed stirring (2-3 minutes Silverson).		
3. Add phase C with mixing.		