



# Cosmetic Microspheres

## CM-111

### Introduction

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3M™ Cosmetic Microspheres CM-111 are semi-transparent, white, micron-sized spherical ceramic particles used as fillers/texture enhancers in a variety of cosmetics formulations, including lipsticks, pressed and loose powders, mascara, hand lotions and more. Their spherical shape can give cosmetic formulations a silky-soft, luxurious feel, while helping to provide more consistent processing – and at a lower cost-in-use, compared to conventional premium fillers, such as boron nitride, PMMA, spherical silica and nylon microspheres.

The ceramic composition of 3M cosmetic microspheres makes them non-absorbent, to maintain spreadability and help prevent formulations from drying out. It also allows higher pigment loading in products such as cream powders. 3M cosmetic microspheres offer an excellent balance of Total and Scattered Light Transmission properties, compared to conventional fillers such as PMMAs and silicas, for creating a “soft focus” effect that can help optically blur skin lines and wrinkles, without creating a mask-like appearance.

### Typical Physical Properties

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Not for  
specification  
purposes

Properties	CM-111 Microspheres
Shape	Solid spheres
Composition	Amorphous magnesium silicate
Color, Unaided Eye	White
Particle Density	2.3 g/cc
Surface Area	3.3 m <sup>2</sup> /g

Particle Size (microns)	
90th Percentile	11
50th Percentile	5
10th Percentile	2

## 3M™ Cosmetic Microspheres CM-111 Features and Advantages

Features	Advantages	Potential Benefits
<b>Spherical Shape</b>	Creates a low friction, “ball bearing” effect.	Adds “silky” feel and texture to cosmetic formulations.  Allows greater flexibility in formulation.
	Easily dispersible, rapid wetting.	Helps improve production efficiency.
<b>Soft Focus</b>	Optically blurs fine lines and wrinkles.	Enhances your product’s value and customer appeal.
<b>Precise Particle Size Control</b>	Consistent processing and feel.	Easier processing and consistent product quality.
<b>Inert and nonporous</b>	Negligible effect on most co-ingredients.  High loading potential without changes in viscosity.  Can be surface-treated.	Helps increase production and greater formulation flexibility for reducing costs.
<b>Cost Effective</b>	High-value, cost-effective texture enhancement.	Improves cosmetic performance without adding cost. Helps reduce cost of cosmetic formulation without sacrificing performance.

**Note:** These features and potential benefits are expected based on the shape, particle size and surface chemistry of the cosmetic microspheres and 3M experience with microspheres and compounded products. 3M can not guarantee that these benefits will be realized in any particular application. However, 3M technical service engineers are ready to assist cosmetic manufacturers in their evaluation and optimization of cosmetic formulations using 3M cosmetic microspheres.

For additional information or product samples, please contact 3M technical sales and service representative Gary Kline: 215-431-8051.

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### Specialty Materials

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