

**3M****Application  
Information**

# Cosmetic Microspheres

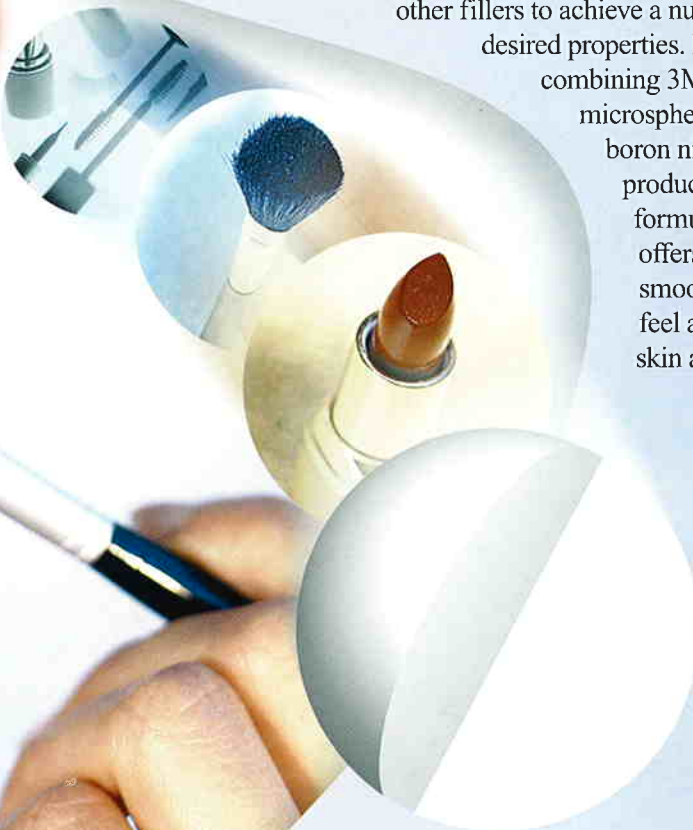
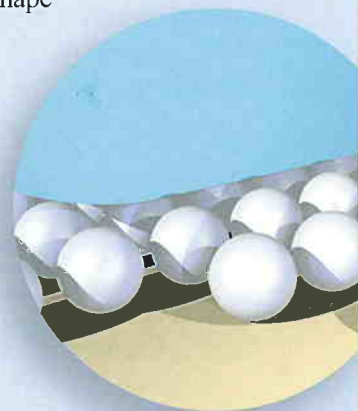
**For a silky smoothness that  
only feels expensive**

3M™ Cosmetic Microspheres are semi-transparent, micron-sized ceramic particles that can be used as fillers/texture enhancers for a variety of cosmetic formulations, including lipsticks, pressed and loose powders, mascara, hand lotions and more. Their spherical shape can give cosmetic formulations a silky-soft, premium feel—while helping to provide more consistent processing.

3M cosmetic microspheres offer a number of performance and cost advantages over other premium fillers, such as boron nitride, PMMA, spherical silica and nylon microspheres:

- “Ball-bearing” effect creates silky, premium feel
- Enhances consistency of applied cosmetics
  - Non-absorbent...won't dry out formulations
  - Lower cost-in-use, compared to many conventional fillers
  - “Soft focus” effect
  - Non-toxic

3M cosmetic microspheres can be combined with other fillers to achieve a number of desired properties. For example, combining 3M microspheres with boron nitride could produce a formulation that offers both a smoother, softer feel and improved skin adhesion.



## **A versatile new technology that gives you more options...**

The nonporous nature of 3M™ Cosmetic Microspheres minimizes their interaction with other formulation ingredients...allowing maximum loadings with minimized viscosity increase. And they are insoluble in virtually any formulation, to help maintain the integrity of your formulation (e.g. less oil absorption).

Because of their uniform, spherical shape, 3M cosmetic microspheres offer improved glide, slip and omnidirectional spreadability. Their high bulk density levels permit the addition of the filler pigments at significant levels with minimal viscosity increase.

As a filler, 3M cosmetic microspheres are essentially “invisible.” This feature is particularly useful in formulating deep color shades, in which the chalky, whitening effect of many common ingredients is a disadvantage. This “invisibility” also allows for use of the material at higher loading levels.

3M cosmetic microspheres are inert, both chemically and physically, so they do not react with other components in a formulation. And they offer excellent processability.



## ...and adds more value to your formulations



### Lipsticks

Unlike many conventional fillers, 3M™ Cosmetic Microspheres absorb very little oil. They can help eliminate brittleness and crumbling as well as sweating and drooping of the poured lipsticks. 3M cosmetic microspheres enable smoother, creamier formulations that apply easily.

### Cream Powders

When formulating cream powder systems, particularly those having no volatile solvent, the objective is to maximize the pigment load. This maximization can be obtained through the utilization of pigments and fillers that wet well and have the lowest possible oil absorption. Materials used should have good slip to augment the “powdery” tactile impression.

The low oil absorption of 3M cosmetic microspheres helps them achieve higher filler loads, while offering a number of other important advantages. For example, formulations containing 3M cosmetic microspheres provide a smooth feel with good spreadability and less drag than some conventional fillers. And their low melt viscosity helps them flow freely, allowing the use of a simple gravity fill—eliminating the need to vibrate or reheat the filled pans.

### Eye Shadow

Formulations containing 3M cosmetic microspheres provide a softer, smoother skin feel and greater “slip” than most conventional fillers. And, compared to similar formulations employing a boron nitride filler, those utilizing 3M microspheres are typically less expensive...even when twice the volume of filler is used.

## Enhance your products with soft focus effect

Compared to conventional fillers such as PMMAs and silicas, 3M cosmetic microspheres offer an excellent balance of Total and Scattered Light Transmission properties. Essentially, these are measurements in the cosmetic industry of a material’s ability to optically blur skin lines and wrinkles, without creating a mask-like appearance.

# 3M Resources

3M™ Cosmetic Microspheres are available globally in commercial quantities. For additional information, please contact your local 3M representative, or call 800-810-8513.



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[www.3m.com/cosmeticsolutions](http://www.3m.com/cosmeticsolutions)

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