

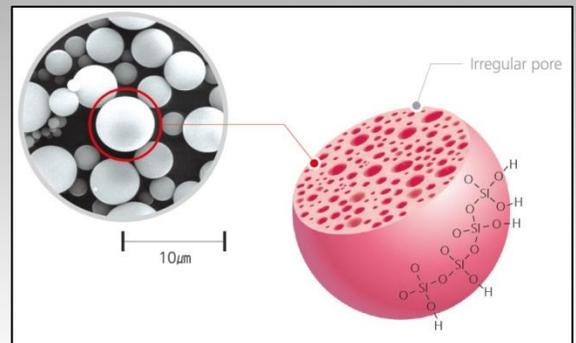
Silica is a chemically stable inorganic synthetic material. It has long been used in cosmetics because there is no irritation to skin. This naturally derived material has a refractive index of approximately 1.45 leaving it essentially transparent and colorless on the skin.

Silisphere spherical silica powder from ARGAN is a comprised of porous silica microbeads. This smooth and silky material is highly versatile, excellent for use in skincare, treatment, make up and fragrance applications. It is reasonably priced making it suitable for both mass market and prestige product applications.

Compared to many of the competitive products on the market, with their origins in the industrial marketplace, Silisphere differs in that it was specifically developed and manufactured to meet the demands of the cosmetic industry. The result is a product of superior quality, performance and texture.

Because Silisphere is porous, it is excellent for oil absorption and may be used in a variety personal care formulations:

- Providing oil/sebum control
- To reduce greasiness of the product
- To build structure and body into a formula
- For controlled release of actives and fragrances
- To improve play-time and spreadability



Tight control of particle size and shape provides Silisphere with its exceptional performance properties; silky smooth lubricity, increased play time and a luxurious skin feel. It is non-agglomerating and has been found useful to improve the dispersion of pigments, powders and binders within cosmetic formulations. The spherical shape of Silisphere also contributes to light scattering, providing optical blurring, also known as a soft focus effect. This effect minimizes the appearance of fine lines on the skin.

## TE(A) SURFACE MODIFICATION

Triethoxycaprylylsilane is a siloxane ether that serves as a binding agent and emulsifier. When used to modify the surface of Silisphere, it provides improved dispersability in various oils, imparts a moist/creamy texture and creates a hydrophobic surface.

## TYPICAL PROPERTIES

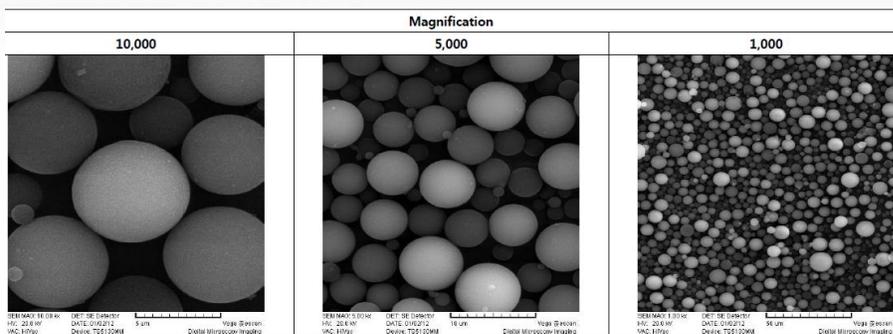
Color	White to off-white
Odor	Odorless or faint characteristic odor
Appearance	Free flowing powder
Lead (Pb)	<10.0 ppm
Arsenic (As)	<2.0 ppm

## AVAILABLE GRADES

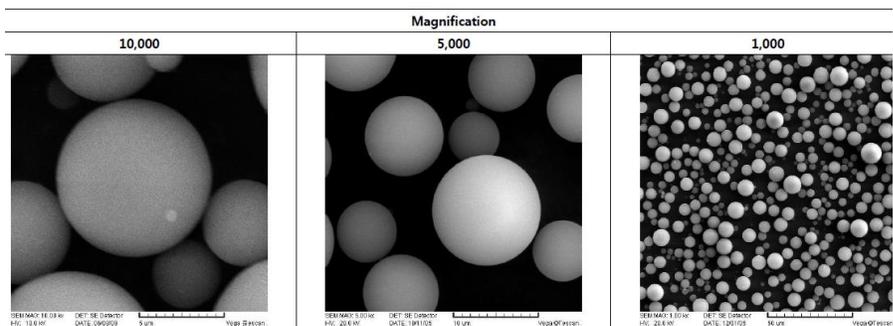
	4M	6M	10M	LS-8H	6M TE(A)	10M TE(A)
<b>Composition</b>	Silica	Silica	Silica	Silica	Silica & Triethoxy-caprylylsilane	Silica & Triethoxy-caprylylsilane
<b>CAS #</b>	7631-86-9	7631-86-9	7631-86-9	7631-86-9	7631-86-9 2943-75-1	7631-86-9 2943-75-1
<b>Mean Particle Size</b>	4 µm	6 µm	10 µm	9 µm	6 µm	10 µm
<b>Oil Absorption, ml/100g</b>	130-170	130-170	130-170	240-260	100-140	100-140
<b>Loss on Drying</b>	<5.0%	<5.0%	<5.0%	<3.0%	<5.0%	<5.0%

## MORPHOLOGICAL ANALYSIS

### Silisphere 6M



### Silisphere 10M



## RECOMMENDED APPLICATIONS

### Powders

- Improve dispersibility of particulates
- Provide light silky skinfeel
- Improved pick up and pay off
- Controlled release of fragrances for longer lasting effects

### Hot Pours

- Reduce syneresis
- Improve structure
- Provide smooth, streak-free application

### Emulsions

- Matte finish
- Soft focus
- Controlled release of actives
- Sebum control (when added to water phase)
- Reduced greasiness, improved body (when added to oil phase)
- Improved stability
- In mascaras, to build lash thickness and improve application

### Personal Care

- Oil control
- Controlled release
- Texture enhancement

Typical Use Level: 3-10%



The information provided is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

January 22, 2019 rev.