

Skin Fabric®

Silica Complex & Interference Pearl



Product Name:	Skin Fabric® Silica Complex
INCI Name:	Gossypium Herbaceum (Cotton) & Silica & Dimethicone
Use Levels:	5.0-10.0%
Applications:	Liquid Foundations, Matte Lipsticks & Lip Treatments, Matte Skin Treatment Products & Creams and Lotions

the polymer, cellulose, which is known to exist within cotton, but instead is a micronized powder developed from the entire cotton fiber. **Skin Fabric® Silica Complex** and **Skin Fabric® Interference Pearl Complex** can be utilized in a number of applications including liquid makeups, mattifying creams, lipsticks, eye creams, and all other skin treatment products such as lotions or creams for a natural breathable finished product.

Product Name:	Skin Fabric® Interference Pearl Complex
INCI Name:	Gossypium Herbaceum (Cotton) & Silica & Mica & Titanium Dioxide & Dimethicone
Use Levels:	5.0-10.0%
Applications:	Creams, Lotions, Powders & Liquid Foundations

Cotton

Cotton is a natural vegetable fiber that is produced by small trees and shrubs belonging to the genus *Gossypium*. As the cotton plant begins to grow, it first blossoms with an immature flower bud referred to as a square. Emerging from the square, is a yellowish-pink large blossom that quickly gives way to the boll. As the season proceeds, the cotton boll begins to fill out with both long and short fibers until it reaches maturity and can thus be harvested.

Introduction

When most of us think of cotton, we tend to envision our clothing, towels, sheets and bed linens. We envision softness, strength, and a multitude of other uses for cotton. In terms of cosmetics, however, cotton is often only associated with applying or removing cosmetic products and not

typically with the finished product itself.

At **Resources of Nature** we have developed two products: **Skin Fabric® Silica Complex** and **Skin Fabric® Interference Pearl Complex**, both of which are derived from the whole cotton fiber for use in cosmetic application. This whole cotton product is not

Cotton has been in existence for thousands of years, and it has been difficult to determine the exact original habitats of the many species of cotton. To date, fibers have been identified from the Tehuacán Valley of Mexico and have been determined to be somewhere in the range of 7000 years old.

In India, it has been concluded that cotton has existed there for over 5000 years. The ancient Chinese, North and South Americans, and Egyptians have also used it. It was also known as one of the first crops that were planted in Jamestown in 1607, by the early European settlers.

Now, there are only a few species grown for commercial uses including; American Upland cotton,



Egyptian and Sea Island cotton, and Pima (an American-Egyptian hybrid cotton). American Upland cotton is a low, multibranched shrub, which is grown as an annual. The Egyptian and Sea Island cottons have longer fibers and thrive in the unique climate of the Sea Islands, as well as on the islands of the West Indies. Pima, the hybrid cotton, is the only long-fiber cotton that is now commercially grown in the US.

Cotton can be found growing from April through harvest time in September in vast areas of the southern

United States, reaching from Northern Florida, north to North Carolina and west to California. Cotton ranks just behind corn, soybeans, and wheat as one of the leading cash crops in the US and is also one of the US's principal agricultural exports. Today, as might be imagined, cotton remains a principle raw material in the world's textiles industry.

Skin Fabric® Silica Complex

Skin Fabric® Silica Complex is a patent pending micronized powder derived from whole cotton fibers, complexed with microfine spherical silica. The spherical silica is chemiabsorbed (bonded) onto the micronized cotton fibers by means of a patent pending technology. This complexation of the micronized cotton fibers and microfine spherical silica creates an aesthetically pleasing raw material to the touch with enhanced light scattering capabilities.

The cotton fibers themselves are flat particles measuring somewhere in the vicinity of 20 µm. The spherical silica particles measure 10 µm. The complexation of the small spherical silica particles with the flat cotton fibers acts to create movement, and produces the ability of the cotton fibers to glide across the skin's surface without the characteristic raspiness of silica. Additionally,

the attachment of these silica particles to the actual cotton fiber creates a multifaceted surface, thus further increasing the light diffusing properties of the **Skin Fabric® Silica Complex**, as compared to the standard **Skin Fabric®**.

Due to the size of the spherical silica particle, many can be chemiabsorbed onto the surface of one flat cotton fiber. It is this structure that greatly increases light diffusing properties. As light hits each particle it is diffused off of the complex, reducing the appearance of skin imperfections thus creating a young healthy glow.

As skin begins to age, a great number of physiological changes occur. Glandular activity declines, thus sebum production is reduced causing skin to become dryer, flakier, and dull in appearance. The collagen and elastin fiber network decreases in size, thus causing skin to become weaker and thinner, and set in motion the development of lines and wrinkles. This thinner outermost layer of the skin becomes duller in appearance primarily because it begins to lose its ability to effectively diffuse light. The thinner the



epidermal layer, the less light is diffused.

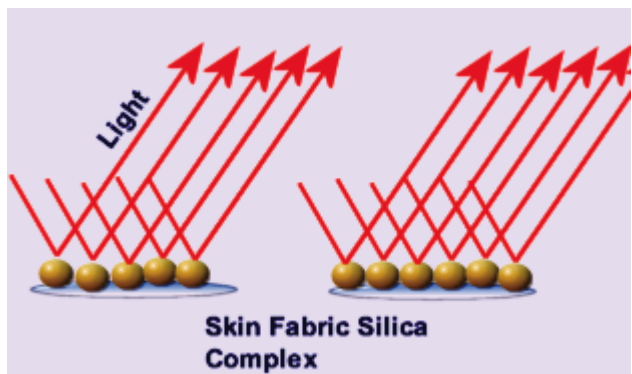
In youth, the epidermal layer is much thicker and rich in collagen and elastin. This thicker outermost layer allows greater internal light reflection, thus providing the healthy, translucent glow of youth.

Skin Fabric® Silica Complex helps to increase overall light diffusion by filling in these imperfections and providing an external layer that greatly increases light scattering, softening the appearance of fine lines and wrinkles while achieving a young healthy glow.

Benefits & Applications

Skin Fabric® Silica Complex can provide an immediate reduction in the appearance of fine lines, by filling in the wrinkle or crease and acting as a strong light diffuser. Overall, skin will be smoother and more youthful appearing.

In liquid makeup, **Skin Fabric® Silica Complex** may be utilized to develop a breathable makeup, with fine line concealing and light diffusing properties. Breathable matte lipsticks and lip treatment products may be developed using



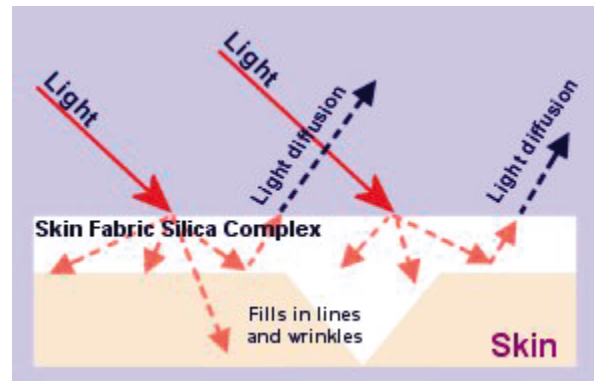
Skin Fabric® Silica Complex to improve aesthetics and fill in fine lines, while preventing feathering and bleeding. **Skin Fabric® Silica Complex** in combination with elastomeric

materials can also be incorporated into mattefying skin treatment products to provide an immediate anti-aging result, by filling in fine lines and wrinkles while increasing light diffusion properties of the skin. **Skin Fabric® Silica Complex** may be utilized most effectively in eye creams, day and night facial creams and lotions, or other skin treatment serum type formulations to provide immediate wrinkle coverage.

Skin Fabric® Interference Pearl Complex

Skin Fabric® Interference Pearl Complex is a micronized powder derived from whole cotton fibers, complexed with Interference Pearls (Titanium Dioxide coated Mica platelets). The Interference Pearls are chemisorbed onto the surface of the cotton fiber by a patent pending technology.

This complexation allows the cotton fiber to help fill in fine lines and hide wrinkles, while the interference pearl diffuses light to create a natural red glow.



As mentioned previously, when skin begins to age, a great number of physiological changes occur which create dry, dull skin. The skin becomes duller in appearance primarily because it begins to lose its ability to effectively diffuse light. In youth, the epidermal layer is much thicker and rich in collagen and elastin. This thicker outermost layer allows greater internal light reflection, thus providing the healthy, translucent glow of youth. **Skin Fabric® Interference Pearl Complex** functions as a skin brightener and radiance enhancer that hides imperfections and creates a natural healthy, youthful glow. **Skin Fabric® Interference Pearl Complex** helps to rejuvenate skin color while modifying the overall complexion.

Benefits & Applications

Skin Fabric® Interference Pearl Complex can provide an immediate reduction in the appearance of fine lines by hiding those imperfections. **Skin Fabric® Interference Pearl Complex** will act as a skin brightener, improve radiance and provide a

natural, youthful healthy glow. **Skin Fabric® Interference Pearl Complex** can be incorporated into all liquid and powder systems from makeup formulations to complexion modifying creams and lotions. **Skin Fabric® Interference Pearl Complex** will provide a youthful healthy glow in many skin formulation products.

Formulation Considerations

Skin Fabric® Silica Complex & Skin Fabric® Interference Pearl Complex may be formulated as any other powder or pigment type products.

Since both **Skin Fabric® Silica Complex & Skin Fabric® Interference Pearl Complex's** ability to absorb water is low, they can be added directly to the oil phase of the formulation.

Alternatively, **Skin Fabric® Silica Complex & Skin Fabric® Interference Pearl Complex** can be post-added to the formulation as the batch begins to cool and reaches a temperature of 45° C or below. Both **Skin Fabric® Silica Complex & Skin Fabric® Interference Pearl Complex** can be used anywhere from 5.0-10.0% in a formulation.

Skin Fabric® Silica Complex

Benefits

- Strong Light Diffuser
 - o Fills in fine lines and wrinkles
 - o Hides imperfections
- Translucent
 - o Diffuses light without opacity
- Natural Fiber
 - o Gentle on skin
 - o Light skin feel
 - o Breathable

Applications

- Liquid Foundations
- Matte Lipsticks and Treatments
- Mattifying Skin Treatment Products
- Eye Creams
- Day/Night Face Creams or Lotions

Skin Fabric® Interference Pearl Complex

Benefits

- Natural Light Diffuser with Pearlescence
 - o Fills in fine lines and wrinkles
 - o Hides imperfections
 - o Provides natural healthy glow
- Skin Brightener
- Radiance Enhancer
- Complexion Modifier
- Natural Fiber
 - o Gentle on skin
 - o Light skin feel
 - o Breathable

Applications

- Face Creams/Lotions
- Pressed/Loose Powders
- Liquid Foundations
- All Liquid & Powder Systems

Resources Of Nature, Inc.
2259 South Clinton Avenue
South Plainfield, NJ 07080 USA

Phone 908-226-5123
Fax 908-226-1514

www.resourcesofnature.com

Manufactured and Distributed by D.C. Inc., South Plainfield, NJ 07080