

SilDerm[®] Emulsifying BG

Increases Efficiency + Dispersion Aid + Natural Aesthetic



Tomorrow's Vision... *Today!*[®]

SilDerm[®] Emulsifying BG

Technical Information:



Code: 30314

INCI Nomenclature: Butylene Glycol & Polymethylsilsesquioxane

INCI Status: Approved

Suggested Use Level: 0.5 - 15.0%

Suggested Application: Low Emulsifier Systems & Pigment Spacer

Conditions Skin + Improves Texture

Current Market Trends:



- Make-up with staying power occupies a significant place in the cosmetics market
- Consumers' perception:
 - long-wear make-up = dehydrated, cakey-looking skin
- The holy grail for long-wear cosmetics is to achieve:
 - Increased duration of make-up wear time
 - Maintain a healthy feel and look on the skin

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Science:

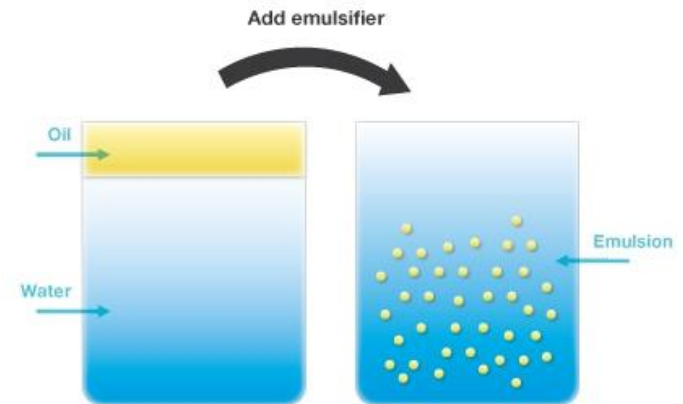


- **SilDerm® Emulsifying BG** is a dispersion of Polymethylsilsesquioxane (PMSQ) in Butylene Glycol
- Chemical formula $[\text{CH}_3\text{SiO}_{3/2}]_n[\text{CH}_3\text{Si}(\text{OH})\text{O}_{3/2}]_m$
- PMSQ is a 3-dimensional matrix
 - Its surface is populated by methyl and hydroxyl groups
- By altering the ratio of methyl & hydroxyl groups, we are able to modify the amphiphilic characteristics of the particles
 - Creates unique behavior at the W/O or W/S interface
- This product is a primary emulsifier
 - Eliminates or reduces the need for other emulsifiers

Why do You Need an Emulsifier?

Science:

- Emulsifiers prevent the separation of ingredients & extend product storage life
- Agitation drives simple diffusion of particles across the interface
- As concentration increases, the particles search for thermodynamic stability, and begin collecting back at the interface
- The collection of particles at the interface prevents coalescence



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Production:



- SilDerm[®] Emulsifying BG is incorporated into the water phase
- Its particulate nature prevents it from disruption by high-shear/high-pressure processing
 - Depending on the formulation, rheological agents may be added to prevent creaming
 - Variation in electrolyte levels and pH may effect individual emulsions

A Multitude of Applications

SilDerm® Emulsifying BG's 3-Dimensional structure allows it to interspace itself with the pigments preventing agglomeration



- ➔ Even more color development in decorative products
- ➔ More efficient UV absorbance for physical sunscreens
- ➔ Lack of soft agglomerates allow for sheer products with a more natural appearance

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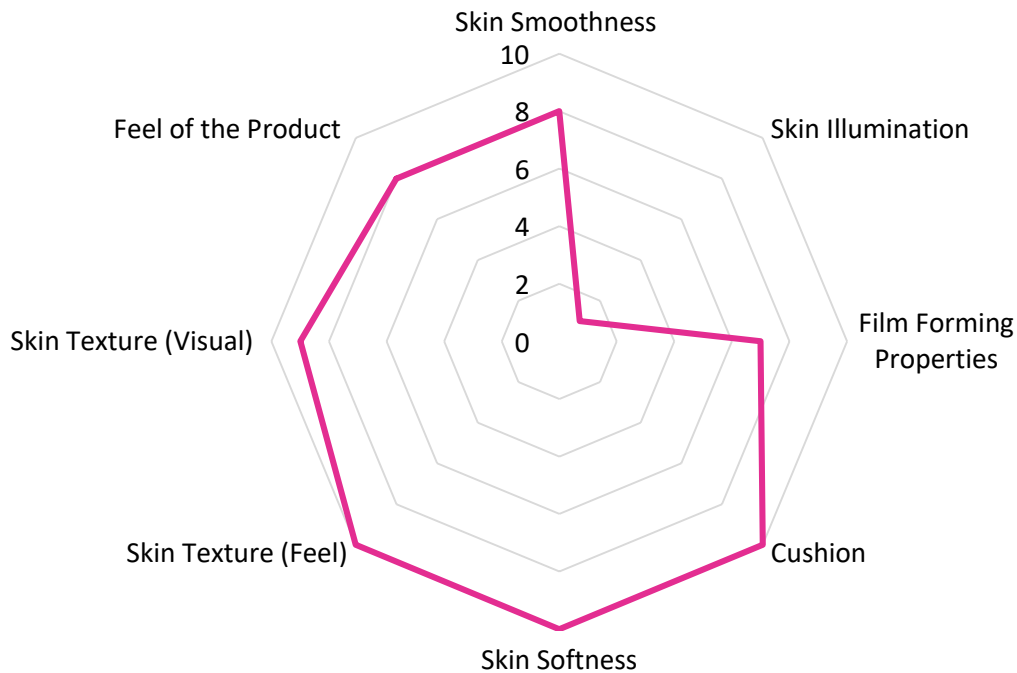
Benefits:



- ✓ Primary Emulsifier
- ✓ Improved Dispersion
- ✓ Improves Natural Appearance
- ✓ Increases Efficiency of Products

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SilDerm[®] Emulsifying BG Evaluation



- **SilDerm[®] Emulsifying BG** has been evaluated for a number of tactile qualities in order to best understand its strengths, and the formulations it would be best suited for
- Very flexible in formulations
- Visually appealing as a raw
- Excellent cushion
- Film-forming properties

Figure 1. Overall product evaluation

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THANK YOU

Please visit and register to use our new website at

www.activeconceptsllc.com

When you register, you will have access to the complete product documentation available.