

CareSil® Encapsulated Silicone

CES-1104

INCI Nomenclature: DIMETHICONE (AND) AQUA (AND) GLYCERIN (AND) PENTYLENE GLYCOL (AND) DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER (AND) PHENOXYETHANOL (AND) CARBOMER (AND) AMODIMETHICONE (AND) SODIUMHYDROXIDE (AND) DISODIUM EDTA

Data Sheet

CareSil's® CES-1104 is part of our new patented CES range. This range of products is made thanks to our SFS (Surfactant Free Silicone) emulsion technology by silicone membrane stabilization and is a high purity elastomer gel delivered in an aqueous gel that is ideal for skin perfecting formulations. This ingredient brings a unique texture: fresh as water at the beginning, which turns into a matte velvet veil, leaving your skin moisturized and soft as peach.

Applications

- Moisturization
- Anti-Aging/Anti-Wrinkle
- Sunscreen, After-Sun, and Self-Tanners
- Skin Repair Serums
- Skin Tone Repair
- Men's Grooming
- Color Cosmetics

Features

- Elastomer gel delivered from an hydrophilic gel
- Surfactant free, silicone membrane stabilization
- Cyclic free
- Ease of use and dispersion : directly in the water phase

Benefits

- Light and Smooth feel for aqueous base formulations
- Transformable texture : light and watery at the beginning that turns into a matte velvet veil
- With carefully controlled conditions, possible to formulate transparent products

PROPERTIES	AVERAGE RESULT	STANDARD	NT-TM
Viscosity	60,000 cP	ASTM D2196 ASTM D1084	001
D4 Content **	<0.05%	-	-
Appearance	Translucent to opaque, Colorless to yellow tint, Gel	ASTM D2090	002
Refractive Index	1.40	ASTM D1747 ASTM D1218	018
Specific Gravity *	1.03	ASTM D891 ASTM D1475	022
pH	5.7	ASTME70 ASTM D4613 ASTM D1287	135

** Due to its unique formulation and large concentration of water, custom test methods for Gas Chromatography are still in process

*Property NOT tested on a lot to lot basis

Instructions for Use

CES-1104 is very easy to use and versatile in any kind of formulation.

- It may be formulated into water-in-oil emulsions, water-in-silicone emulsions, oil-in-water emulsions and water-based formulations
- It is soluble in water, alcohol and hydroalcoholic systems
- The product can be directly incorporated in water phase in an emulsion formulation
- It can be post-added to emulsions
- It can be used with cold process and hot process
- It may be formulated with the use of mixers and may be subjected to high-shear devices
- Resistant to $4.5 \leq \text{pH} \leq 7.5$
- Possible dilution with distilled water only if a suspensive agent is used or dilution with a water-based gel (carbomer, acrylate polymer, natural gum,...) Put all the ingredients which may contain electrolytes, salt at the end of the process

Achieving Transparency

CES-1104 can deliver transparent aqueous finished formulations with a unique light & velvety skin feel.

- Match the refractive index by adding glycerin without sticky or greasy after feel
- Add some EDTA to stabilize the gel if the finished product is exposed to UV light
- Put all the ingredients which may contain electrolytes, salt at the end of the process
- Remove air bubbles under vacuum before neutralizing the water-based gel (carbomer, acrylate polymer) or at the end of the process

Please contact NuSil Technology for formulation guidelines, as well as sample quantities.

NuSil Technology

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Packaging

- 0.200kg Sample
- 16kg Pail
- 190kg Drum

Use By

36 Months from Date of Manufacture

Specifications

Do not use the properties shown in this technical profile as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.

Warranty Information

NuSil recommends using the material within 36 months of manufacture when stored below 40°C in original unopened containers. Unless NuSil Technology provides a specific written warranty of fitness for a particular use, NuSil Technology's sole warranty is that the product will meet NuSil Technology's then current specification. NuSil Technology specifically disclaims all other expressed or implied warranties, including, but not limited to, warranties of merchantability and fitness for use. The exclusive remedy and NuSil Technology's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. NuSil Technology expressly disclaims any liability for incidental or consequential damages. NuSil Technology makes no claim or warrant that this product is intended to affect the structure or any function of the human body.

Warnings About Product Safety

NuSil Technology has tested this material to assess its compliance with the current specification requirements. NuSil recommends each purchaser ensure the material complies with all applicable laws, as well as complies with their applications specific safety protocol. NuSil Technology suggests users further test CareSil® materials to facilitate the safety and suitability of the material within their specific application requirements.

When considering the use of NuSil Technology products in a particular application review the latest Safety Data Sheet and contact NuSil Technology with any questions about product safety information.

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