

CES-1104

Encapsulated silicone

DESCRIPTION

- INCI Nomenclature: Dimethicone (and) Aqua (and) Glycerin (and) Pentylene Glycol (and) Dimethicone/Vinyl Dimethicone Crosspolymer (and) Phenoxyethanol (and) Carbomer (and) Amodimethicone (and) Sodium Hydroxide (and) Disodium Edta
- Elastomer gel delivered in a hydrophilic gel
- Surfactant free, silicone membrane stabilization
- Cyclic free
- Ease of use and dispersion: directly in the water phase

APPLICATION

- For aqueous base formulation looking for light and smooth feel.
- Transformable texture: light and watery upon application that turns into a matte velvet veil finish
- With carefully controlled conditions, possible to formulate transparent products
- Use in moisturization, sunscreen, after-sun lotion, self-tanners, men's grooming, and color cosmetics

CES-1104 is part of our new patented CES range. This range of products is made using 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

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Viscosity	60,000 cP	ASTM D2196, D1084	001
		-	-
Appearance	Translucent to opaque, Colorless to yellow tint, Gel	ASTM D2090	002
Refractive Index	1.40	ASTM D1747, D1218	018
Specific Gravity	1.03	ASTM D891, D1475	135
pH	5.7	ASTM E70, D4613, D1287	135

The test data shown for this material is the average value for typical properties. All of these properties may not be tested on a lot to lot basis and cannot be used to draft specifications. Please [contact](#) NuSil® for assistance and recommendations in establishing limits for product specifications.

INSTRUCTIONS FOR USE

Application

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

FDA MASTER FILE

For customers interested in a Master File for this product, please [contact](#) NuSil.

REACH COMPLIANCE

Please [contact](#) NuSil's Regulatory Compliance department with any questions or for further assistance.

Packaging

8 Ounce (0.2 kg)
5 Gallon Pail (16 kg)
1 Drum (190 kg)

Warranty

36 Months

SPECIFICATIONS

Do not use the typical properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil for assistance and recommendations in establishing limits for specifications.

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC is 36 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil provides a specific written warranty of fitness for a particular use, NuSil's sole warranty is that the product will meet NuSil's then current specification. NuSil 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'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 expressly disclaims any liability for incidental or consequential damages.

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NuSil has tested this material only to determine if the product meets the applicable specifications. (Please [contact](#) NuSil for

assistance and recommendations when establishing specifications.) When considering the use of NuSil products in a particular application, review the latest Material Safety Data Sheet and [contact](#) NuSil with any questions about product safety information.

Do not use any chemical in a food, drug, cosmetic, or medical application or process until having determined the safety and legality of the use. The user is responsible to meet the requirements of the U.S. Food and Drug Administration (FDA) and any other regulatory agencies. Before handling any other materials mentioned in the text, the user is advised to obtain

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