

Technical Data Sheet



Silsoft* E-Pearl

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Description

Silsoft E-Pearl emulsion is a patentpending, non-ionic emulsion of polymethylsilsesquioxane powder, high molecular weight dimethicone and an alkyl-functionalized polysiloxane.

Silsoft E-Pearl emulsion is a multi-functional ingredient that has application in all kinds of skin care products; from facial masks to body washes and sun care products. It provides outstanding sensory, moist feel, line blurring and skin lightening benefits. Silsoft E-Pearl emulsion's multi-functionality is the result of the unique combination of its ingredients.

Silsoft E-Pearl emulsion is easy to use. It can even be post-added to existing formulations! Silsoft E-Pearl emulsion enables the formulator to give outstanding sensory to skin care products with high water content, even when the product contains more than 90% water.

Key Features and Benefits

- Extremely easy to use
- Cold processable
- Excellent dispersability in water
- Outstanding lubricity and spreadability
- Soft, smooth, silky feel
- Light diffusion effects
- Moisturizing properties of petrolatum/aesthetics of silicone
- Can be post-added to existing formulations
- Can be used in water-based cosmetics
- Superb application properties
- Excellent sensory
- Blurring of fine lines and wrinkles
- Moisturization with silicone feel

Proposed INCI Name: Water (and) Polymethylsilsesquioxane (and) Dimethicone (and) Isohexadecane (and) Cetearyl Methicone (and) PEG-40 Stearate (and) Steareth-2 (and) Steareth-21

Typical Physical Properties

Appearance	Milky white
Viscosity, Pas	2-10

(1) Typical properties cannot be used as specifications

Chemical Structure

Silsoft E-Pearl emulsion is a patent-pending, non-ionic emulsion of polymethylsilsesquioxane powder, high molecular weight dimethicone and an alkyl-functionalized polysiloxane.

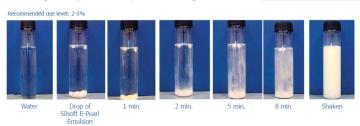
Potential Applications

■ Facial Products		
Masks	Toners	Cleansers
 Suncare Products 		
Sunscreens	Daily wears	
■ Body Washes		
■ Color Cosmeticss		
Foundations	Eye Shadows	Blushes
■ O/W Emulsions		
Creams	Lotions	Protective Products

Processing Recommendations

Silsoft E-Pearl emulsion can be easily dispersed in water simply by shaking.

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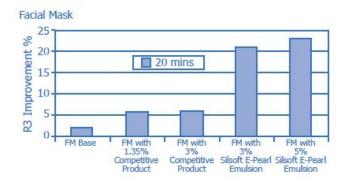


Application in Facial Mask Silsoft E-Pearl Emulsion Benefits

- Easy to formulate simply by shaking
- Outstanding smoothness
- Excellent softness
- Long-lasting sensory and moist feel
- Blurring of fine lines
- Good texture feel for facial mask sheet

Facial Mask Formula	FM Bass	Silsoft E-Pearl Emulsion FM with 3%			
	%	%			
Purified Water	to 100	to 100			
Glycerine	7	7			
1,3 Butylene Glycol	4	4			
Silsoft E-Pearl Emulsion	0	3			
Carbomer	0.15	0.15			
Triethanolamine	0.15	0.15			
Preservative	per label directions	per label directions			

Line Blurring Effect



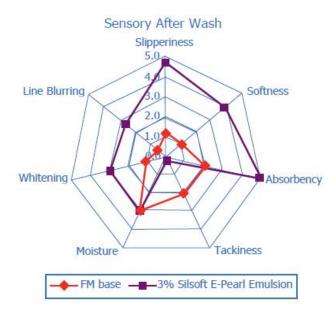
Graph 1 : Line blurring effect of Silsoft E-Pearl emulsion R3 = line depth; FM = facial mask

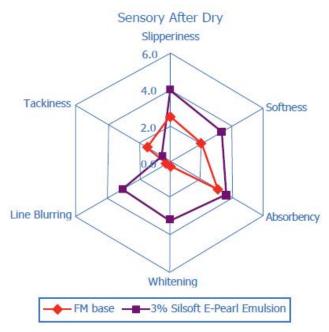
Facial Mask formula without and with Silsoft E-Pearl emulsion



Sensory Enhancement: Facial Mask (FM)







Facial Mask Base + 3% Silsoft E-Pearl Emulsion Enhanced:

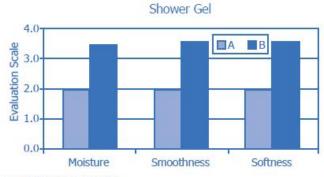
- Softness and absorbency
- Line blurring
- Whiteness
- Slipperiness

Reduced tackiness

Application in Shower Gel

	A	В
Purified Water	to 100	to 100
Sodium Laureth Sulfate (70%)	20.0	20.0
Cocoamidopropyl Betaine (30%)	5.0	5.0
Silsoft E-Pearl Emulsion	0.0	3.0
Carbomer	1.0	1.0
Polyquaternium-10	0.2	0.2
Sodium Hydroxide (18%)	1.5	1.5
Preservative	per label directions	per label directions

Shower gel



A: Control Shower Gel Formula B: Shower Gel with 3% Silsoft E-Pearl emulsion

An in-house trained sensory panel preferred the formula with Silsoft E-Pearl emulsion because it enhanced skin's moist feel, softness and smoothness.

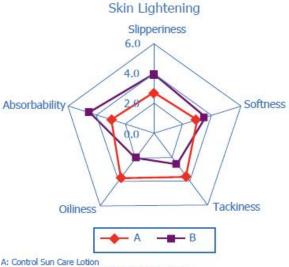
Application in Skin Lightening Sun Care Lotion

Ingredients	А	В
Oil Phase	w/w %	w/w %
POE (2) Stearyl Ether	2.00	2.00
POE (2) Stearyl Ether	1.50	1.50
Cyclopentasiloxane	3.00	3.00
Cyclopentasiloxane (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer (Velvesil* 125 silicone network) (1)	5.00	5.00
Caprylyl Methicone (Silsoft 034 organosilicone fluid) (1)	3.00	3.00
Cyclopentasiloxane (and) Trimethylsiloxysilicate (SS4230) (1)	0.50	0.50
Tocopherol Acetate USP	0.30	0.30
TiO2	0.30	0.30
C12-15 Alkylbenzoate	0.60	0.60
Benzophenone-3	2.00	2.00
Octyl MethoxyCinnamate	4.00	4.00
Butylmethoxydibenzoylmethane	1.50	1.50
Water Phase		
Purified Water	67.58	62.58
Glycerin	5.00	5.00
Niacinamide	2.00	2.00
Panthenol	1.00	1.00
Na ₂ EDTA	0.08	0.08
Sodium Ascorbyl Phosphate	0.04	0.04
Carbomer	0.16	0.16
Arbutin (3)	0.05	0.05
Germaben-IIE (2)	0.07	0.07
Triethanolamine NF	0.16	0.16
Fragrance	0.16	0.16
Silsoft E-Pearl Emulsion (1)	0.00	5.00

⁽¹⁾ Momentive Performance Materials

⁽²⁾ ISP

⁽³⁾ Zhong Shi chemical



B: Sun Care Lotion with 5% Silsoft E-Pearl emulsion

Silsoft E-Pearl emulsion can be post-added directly to any skin care finished product to deliver outstanding sensory benefits

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