



a Cargill company

# Silicone-Free Foundation with L22 and Emulsun

Products Highlighted: Emulsun®, L22®, Florasun® 90, Floraesters® IPJ, Floraesters 20, Floraesters 60, Floramac® 10, and Floraesters K-20W® Jojoba



This full-coverage, long-wear foundation utilizes a harmonious blend of Floratech ingredients to maximize function and quality. Floraesters and L22 provide skin hydration and barrier function properties while Floramac 10 helps increase pigment wetting and dispersion. 🌿 🧴

Phase	Trade/Common Name	INCI Name	Manufacturer	%wt/wt
A.	Deionized Water	Water	-----	q.s.
	Butylene Glycol	Butylene Glycol	Making Cosmetics	5.00
	Natrosol 250-HR CS	Hydroxyethylcellulose	Ashland	0.50
	Veegum® R	Magnesium Aluminum Silicate	Vanderbilt Minerals, LLC	0.85
B.	Dispersun DSP-OL100	Polyhydroxystearic Acid	Innospec Performance Chemicals	0.35
C.	Unipure® White LC 987	Titanium Dioxide	Sensient Cosmetic Technologies	5.30
	Tres BN® PUHP1109	Boron Nitride	Saint-Gobain Advanced Ceramics	0.80
	Unipure® Yellow LC 182	Iron Oxides	Sensient Cosmetic Technologies	1.23
	Unipure® Red LC 381	Iron Oxides	Sensient Cosmetic Technologies	0.16
	Pur Oxy Black BC (34PC3190E)	Iron Oxides	DyStar	0.10
D.	<b>Floraesters IPJ</b>	<b>Isopropyl Jojobate (and) Jojoba Alcohol (and) Jojoba Esters</b>	<b>Floratech</b>	<b>5.00</b>
	<b>L22</b>	<b>Jojoba Oil/Macadamia Seed Oil Esters (and) Squalene (and) Phytosteryl Macadamiate (and) Phytosterols (and) Tocopherol</b>	<b>Floratech</b>	<b>3.00</b>
	<b>Floramac 10</b>	<b>Ethyl Macadamiate</b>	<b>Floratech</b>	<b>5.00</b>
	<b>Florasun 90</b>	<b>Helianthus Annuus (Sunflower) Seed Oil</b>	<b>Floratech</b>	<b>2.00</b>
	<b>Floraesters 20</b>	<b>Jojoba Esters</b>	<b>Floratech</b>	<b>0.50</b>
	<b>Floraesters 60</b>	<b>Jojoba Esters</b>	<b>Floratech</b>	<b>0.50</b>
	Vegarol® 1898	Stearyl Alcohol	Essential Ingredients	1.50
	SYNETH® S7 K RSPO MB Pastille	Polyglyceryl-3 Stearate	Lonza, Inc.	0.50
	Vitamin E Acetate	Tocopheryl Acetate	Essential Ingredients	0.50
	Actique Ceramide	Ceramide NG	Jarchem Industries, Inc.	0.10
	<b>Emulsun</b>	<b>Hydrogenated Sunflower Seed Oil Polyglyceryl-3 Esters (and) Hydrogenated Sunflower Seed Oil Glyceryl Esters (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate</b>	<b>Floratech</b>	<b>4.00</b>
E.	Glycerine 99.7% USP Kosher	Glycerin	Acme-Hardesty Co.	3.00
	Zemea® Propanediol	Propanediol	DuPont Tate & Lyle BioProducts	3.00
	<b>Floraesters K-20W Jojoba</b>	<b>Hydrolyzed Jojoba Esters (and) Water (Aqua)</b>	<b>Floratech</b>	<b>2.50</b>
	TAPIOCA PURE	Tapioca Starch	Nouryon	1.00
F.	Preservative <sup>1</sup>	-----	-----	q.s.
	Citric Acid (10% Solution)	Citric Acid (and) Water	Archer Daniels Midland Co.	q.s.
<b>Total</b>				<b>100.00</b>

## Mixing Procedure

- Mix the Natrosol 250-HR CS and the Veegum R with the Butylene Glycol. Add to the deionized water of Phase A with rapid propeller agitation and heat to 75-80°C. Keep mixing with moderate to rapid propeller agitation until completely hydrated.
- Shift Phase A to homomixing. Utilize high-speed homomixing to activate the Veegum R.
- When Phase A becomes smooth, add Phase B to Phase A at 75-80°C with high-speed homomixing.
- When Phase AB becomes uniform, add the ingredients of Phase C to Phase AB at 75-80°C with high-speed homomixing.
- In a separate vessel, combine all the ingredients except the Actique Ceramide and the Emulsun of Phase D. Heat to 75-80°C and mix with moderate propeller agitation until uniform. Then add the Actique Ceramide to the mixture at 75-80°C. Keep mixing until uniform. When the mixture becomes clear, add the Emulsun. Maintain the temperature at 75-80°C.
- Add Phase D to Phase ABC with high-speed homomixing agitation at 75-80°C. Mix until the color of mixture becomes uniform.
- Shift Phase ABCD to rapid propeller mixing and cool to 55-60°C.
- In a separate vessel, mix all the ingredients of Phase E until uniform. Add to Phase ABCD at 55-60°C with moderate propeller agitation.
- Add Phase F to Phase ABCDE at 50-55°C in the order listed with moderate propeller agitation.
- Adjust weight with water at 50-55°C.
- Stop mixing at 40-45°C. Allow the batch to stand overnight to complete the emulsification.

Typical Properties: pH: 6 - 7  
Viscosity: 293 - 440kcP

<sup>1</sup> Preservative: euxyl® PE 9010 [INCI: Phenoxyethanol (and) Ethylhexylglycerin] supplied by Schülke Inc.

Note: The information herein is based on our research and the research of others and is believed to be accurate. No guarantee of accuracy is made and the products are provided without warranty, expressed or implied and upon condition that purchasers shall make their own tests to determine the suitability, stability or safety of such products for their particular purposes. Likewise, statements concerning the possible use of these products are not intended as recommendations to use these products in infringement of any patent or in the treatment, prevention, or cure of any medical condition. INCI/trade names must be verified with each manufacturer. (Cleared for Public Disclosure)