liquid foundation

formula #: 300-10004

material #:

ingredients (trade name | INCI name)		%w/w	supplier
phase a			
Deionized Water	Aqua (water)	36.8900	Local
Butylene Glycol	Butylene Glycol	4.0000	Local
Disodium EDTA	Disodium EDTA	0.1000	Local
Triethanolamine	Triethanolamine	0.3800	Local
Ultrathix™ P-100 polymer	Acrylic Acid/VP Crosspolymer	0.5000	Ashland
phase b			
SB700 Silica Beads	Silica	1.0000	Miyoshi
BTD-401	Titanium Dioxide (And) Isopropyl Titanium Triisostearate	7.0200	Kobo Products
BYO-12 ITT Treated Yellow Oxide	Iron Oxides (and) Isopropyl Titanium Trisostearate	0.5000	Kobo Products
BRO-12	Iron Oxide (C.I. 77491) (And) Isopropyl Titanium Triisostearate	0.2200	Kobo Products
BBO-12	Iron Oxide (C.I. 77499) (And) Isopropyl Titanium Triisostearate	0.0800	Kobo Products
O-13 ITT Treated Sericite	Mica (and) Isopropyl Titanium Trisostearate	1.5600	Kobo Products
phase c			
Cerasynt™ 945 ester	Glyceryl Stearate (and) Laureth-23	3.0000	Ashland
Eumulgin* B2	Ceteareth-20	1.0000	BASF
Ceraphyl™ 140 ester	Decyl Oleate	1.5000	Ashland
Ceraphyl™ 494 ester	Isocetyl Stearate	0.7500	Ashland
Escalol™ 597 UV filter	Octocrylene	8.0000	Ashland
Escalol™ 567 UV filter	Benzophenone-3 (Oxybenzone)	5.0000	Ashland
Escalol™ 587 UV filter	Ethylhexyl Salicylate (Octisalate)	5.0000	Ashland
Escalol™ 517 UV filter	Butyl Methoxydibenzoylmethane (Avobenzone)	3.0000	Ashland
DMF- 350CS	Dimethicone	1.0000	Shin-Etsu Silicone
Belsil* PDM 20	Trimethylsiloxyphenyl Dimethicone	12.0000	Wacker
phase d			
Cyclopentasiloxane	Cyclopentasiloxane	5.0000	Local
phase e			
Optiphen™ preservative	Phenoxyethanol (and) Caprylyl Glycol	1.5000	Ashland
Aqua-Osmoline™ biofunctional	Water (and) Glycerin (and) Ceratonia Siliqua (Carob) Seed Extract	1.0000	Ashland
total		100.00	

procedure

Into main beaker, add water, butylene glycol, and disodium EDTA. Begin slow homogenization and mix until clear. Add triethanolamine and mix until uniform. Sprinkle UltraThix P-100 polymer slowly until well incorporated.
Weigh ingredients of phase b and pulverize for 10 minutes.
In a separate beaker, add ingredients of phase c and heat to 75-80C while mixing.
Switch phase c to homo-mixer and add phase b. Homo-mix phase b and phase c maintaining temperature at 75-80C.

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Ashland always solving

Heat phase a to 75-80C and add phase bc to phase a while homogenizing. Homo-mix for about 10 minutes.
Begin cooling the batch to 55C. Add phase d. Continue homo-mixing.
Cool batch to 40-45C and add phase e. Homo-mix for 5 minutes.
Switch to sweep agitation and cool to room temperature.

typical properties

description: Smooth, creamy liquid

pH: 6.25-6.75

viscosity: Brookfield LVT/Spindle-TC/5 rpm/1 minute/25C = 60,000-75,000 cps

stability/challenge information: This formula passed standard stability protocol and micro challenge testing. The preservative system, however, has not been optimized to its lowest effective level.