

## DermaScreen 2-in-1 Tinted Sunscreen Foundation, SPF 36 (SU-WSI 002)

A powdery smooth 2-in-1 sunscreen foundation with broad spectrum mineral protection against environmental aggressors. A medium buildable coverage with a natural finish that is easily blendable on any skin tone. This professional sunscreen prototype is a fully stable, flexible chassis that is easily adapted to fit any kind of multi-functional UV protection product.

Claims: *Broad Spectrum, Vegan, Cruelty-Free, Non-Comodegenic, Gluten-Free, Non-nano*

**S-Block** is the new generation of sensory UV-grade mineral dispersions designed for modern high performance sun care. It is an extremely light-feel dispersion with a smooth powdery sensory. It is non-nano, has an enhanced active loading of 78%, and gives predictable SPF and broad-spectrum benefits. Its excellent multi-system compatibility simplifies both formulation development and the manufacturing process.

**G-GEL 100V** is a dimethicone based organoclay gel designed for sensorial beauty applications. It greatly boosts suspension and sensory of mineral pigments, making it a crucial ingredient in stabilizing mineral sunscreens. It also shows an excellent thermal stability and suspension power.

### Specifications

- 🍏 SPF:35.7 (in-vivo, FDA protocol, one subject)
- 🍏 Viscosity @ 1 rpm: 196,000 cP
- 🍏 Viscosity @ 10 rpm: 32,240 cP
- 🍏 50°C oven: 1 month stable
- 🍏 Freeze-Thaw: Passed 3 Cycles

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A <sub>1</sub>	S-Block DZ 100 PDCC	27.0
	G-Gel 100V	3.00
	Phenyl Trimethicone	4.00
A <sub>2</sub>	Yellow Iron Oxide	0.92
	Red Iron Oxide	0.31
	Black Iron Oxide	0.16
	Mica	0.41
	Applemol PTIS Plus	1.20
A <sub>3</sub>	Dimethicone (and) Polysilicone-11 (Gransil DMG-3)	8.00
	Dimethicone (and) Dimethicone Crosspolymer (Dowsil 9041)	5.00
	Cetyl Diglyceryl Tris(trimethylsiloxy)silylethyl Dimethicone (Dowsil ES-5600)	4.00
A <sub>4</sub>	Dimethicone (2 cSt)	7.00
	Silica Silylate (Dowsil VM-2270 Aerogel Fine Particles)	0.20
B	Water	34.3
	Propanediol	3.00
	Magnesium Sulfate	1.00
	Preservative	0.50

### Processing Method

1. Mix Phase A<sub>2</sub> with a dispersion blade mixer at 70 degree Celsius for 20-30 minutes (until homogenous consistency/appearance). Pass Phase A<sub>1</sub> through 3 rollermill (7:3, 3:1 gap size).
2. In a separated vessel, mix Phase A<sub>1</sub> (main vessel) with a dispersion blade mixer at room temperature until G-Gel 100V is fully dispersed. Add Phase A<sub>2</sub> to Phase A<sub>1</sub> and continue mixing. Then add Phase A<sub>3</sub> and continue mixing until homogenous.
3. Mix Phase A<sub>4</sub> to a slurry and add into main vessel and use Silverson homogenizer to homogenize at 4000-4500 rpm at room temperature.
4. Slowly add Phase B into Phase A while dispersing, then use Silverson homogenizer to homogenize for 5 minutes.