

SheerShield Tinted Lip Balm, SPF 35 Broad Spectrum (CC-LB 001 v2)

A dramatic improvement over traditional mineral lip balm technology, this formulation is 99.999% natural and has fantastic transparency. This stick features strong stability and efficient sun protection, requiring only 16.1% Zinc Oxide actives to achieve SPF 35 without any SPF boosters. This version showcases the versatility of using the base SheerShield formula as a stable chassis, as it can be easily tinted with organic pigments with the addition of **Applecare PDS-300** in the dispersion phase - all without effecting other product properties.

Applecare PDS-300 is widely known for its use in wetting and dispersing traditional pigments. It greatly improves the pigment dispersion process, allowing color cosmetic formulators to create highly pigmented dispersions with smooth sensory and improved water resistance.

G-GEL ECO-HMS is an organoclay gel designed for clean beauty application and natural formulation. It has a natural origin index of 0.99. It reduces drag and tackiness from waxes and film formers. G-Gel technology greatly boosts suspension and creamy sensory of mineral UV filter, making it a crucial ingredient in stabilizing mineral sunscreens.

G-Block products are COSMOS, NPA approved, high active mineral UV filter dispersions which give predictable SPF and broad-spectrum benefits. Their excellent spreadability simplifies formulation development and the manufacturing process.

Specifications

- 🍏 SPF:34.5, FDA protocol, 1 subject
- 🍏 CW: 370 nm, Broad Spectrum
- 🍏 50°C oven: 1 month stable
- 🍏 Freeze-Thaw: Passed 3 Cycles

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A ₁	G-Block DZ 370 CCT	23.0
	G-Gel Eco-HMS	5.00
A ₂	Prunus Amygdalus Dulcis (Sweet Almond) Oil	5.00
A ₃	Red 7 Lake (LC3079)	0.30
	Applecare PDS-300	0.05
	Pentaerythrityl Tetraisostearate	0.65
B ₁	Squalane	10.0
	Shea Butter	9.00
	Cocos Nucifera (Coconut) Oil	19.0
	Euphorbia Cerifera (Candelilla) Wax	11.0
	Hydrogenated Castor Oil (Castor Wax MP 70)	6.00
	Beeswax	6.50
B ₂	Stearic Acid	4.00

Processing Method

1. Mix Phase A₁ with a dispersion blade until homogeneous paste. Add Phase A₂ and continue mixing for 10 minutes.
2. In a clean beaker, slowly disperse pigment into liquid phase of dispersion (Phase A₃) at 70C. Mix for 30 minutes on dispersion blade, then let rest for 30 minutes.
3. On a 3 roll mill, grind pigment Phase A₃ 3 times with gap ratios of 7:3, 3:1, 3:1.
4. Then, Add Phase A₃ to Phase A and continue mixing for 10 minutes
5. Raise temperature to 80 Celsius and add Phase B₁. Mix until homogenous and then mix with Phase B₂ until homogeneous.
6. Add Phase C. Raise temperature to 95 C so that it is easy to pour into mould and allow it to solidify. Let the stick harden for 2 days before checking or demolding.