## Applechem Formulary - Color Cosmetics



## Natural Fusion CC Cream SPF 40, Broad Spectrum CCF - 013 v2

Finally, a natural, stable CC cream that performs as well as standard non-natural versions! The Natural Fusion is a lightweight, water-in-oil CC cream made from clean ingredient sources. Uniform, medium-to-high coverage with excellent sensory and SPF 40 broad spectrum protection.

Applecare PDS 300 evenly distributes highly- loaded mineral UV filters to provide a smooth sensory with UV-blocking effects. It greatly reduces the tacky after-feel.

**G-GEL Eco-HMS** is an organoclay gel designed for clean beauty applications. It greatly boosts suspension and sensory of mineral pigments, making it a crucial ingredient in stabilizing mineral sunscreens.

**Phytocare** is a magic hydration powerhouse active which forms a moisture- restoring flexible film to hydrate and repair the skin, thus rebuilding skin elasticity.

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**

- Yield Stress: 5,929,000 cP
- ∀iscosity @ 10 rpm: 132,000 cP
- 50°C oven: 1 month stable
- Freeze-Thaw: Passed 3 cycles

| PHASE | INCI NAME (TRADE NAME)  | USAGE (WT%) |
|-------|---|-------------|
| A     | Distilled Water   | 41.03       |
|       | Sodium Chloride, NaCl   | 1.00        |
|       | Glycerine   | 3.00        |
|       | Preservative  | 0.20        |
| В     | Snow Mushroom Extract (PhytoCare-HA CG 1M )                             | 0.12        |
|       | Propanediol   | 3.00        |
| C     | Titanium Dioxide  | 9.00        |
|       | Yellow Iron Oxide   | 1.82        |
|       | Red Iron Oxide  | 0.32        |
|       | Black Iron Oxide  | 0.18        |
|       | Applecare PDS 300   | 2.50        |
|       | G-Block DZ 480 CCT  | 10.0        |
|       | G-Block DTB 300 CCT   | 10.0        |
|       | G-Gel ECO-HMS   | 2.50        |
|       | Ethyl Macadamiate (Floramac 10)   | 3.00        |
|       | Octadecane (Parafol 18-97)  | 3.00        |
| D     | Polyglyceryl-4 Diisostearate/ Polyhydroxystearate/Sebacate (Isolan GPS) | 3.00        |
| E     | Dodecane (Parafol 12-97)  | 6.33        |

## **Processing Method**

- 1. Mix Phase A ingredients with a propeller at 500 rpm. Create a slurry with Phase B ingredients and add to A while mixing. Continue mixing for 10 minutes.
- 2. Blend Phase C pigments in a blender until uniform. Homogenize Phase C at 4000 rpm for 5-10 minutes, until G-Gel is well dispersed.
- 3. Mix Phase C with a dispersion blade and add Phase D while mixing at 700-900 rpm for 5 minutes.
- 4. Slowly add AB into CD while mixing, increasing speed to 1000 rpm as needed. Continue mixing for an additional 5 minutes.
- 5. Add Phase E once main phase has cooled below 35 Celsius.

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