





ZnO-PCC

Pigmentary Titanium Dioxide Alternative




Titanium Dioxide is a white pigment widely used in cosmetic products, with a very high refractive index, making it very opaque. It is also used as a sunscreen agent with smaller particle sizes. However, recent trends have let some consumers to favor Zinc Oxide instead of Titanium Dioxide in sunscreens. A similar trend seems to have appeared recently for pigmentary grade, albeit at a limited scale. It is difficult to replace TiO_2 , as Zinc Oxide has a lower refractive index and is therefore more transparent.

For customers who prefer to avoid using Titanium Dioxide as a pigment, Kobo has screened different large particle size Zinc Oxide and selected one, named ZnO-PCC, which is particularly opaque. This pigment was surface-treated with Kobo treatments, in particular ASGP, a hybrid treatment of Natural Origin, which renders powders hydrophobic and superdispersible. Other treatments are also available.

Trade Name	INCI Name	NOI (ISO 16128)
ZnO-PCC-ASGP4  	<i>Zinc Oxide (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid</i>	0.92
ZnO-PCC-NJE3  	<i>Zinc Oxide (And) Jojoba Esters</i>	0.95
ZnO-PCC-11S2	<i>Zinc Oxide (And) Triethoxycaprylylsilane</i>	0.98
ZnO-PCC-I3	<i>Zinc Oxide (And) Isopropyl Titanium Triisostearate</i>	0.97



 Raw materials approved by COSMOS

 Natural Origin Product



Application of KLF-332A-EU over Skin Type VI



Formula: KLP-317-EU - Soft Lips Brilliant Natural Lipstick TiO_2 Free Nude Shade

KOBO

USA

BRASIL

UK

FRANCE

ASIA PACIFIC



KLF-332A-EU

TiO₂ Free Foundation for Skin Type VI

Part 1

- Bentone Luxe XO - Elementis: *C13-15 Alkane, Distearidimonium Hectorite, Polyglyceryl-3 Polyricinoleate* 10.00%
- BeauSens Air - Roelmi HPC: *Ethylhexyl Pelargonate* 9.40%
- Dub 810 C - Stearinerie Dubois: *Coco Caprylate/Caprato* 7.00%
- KOBOGUARD® NATURAL 2063-CCT - Kobo Products: *Glyceryl Hydrogenated Rosinate (And) Caprylic/Capric Triglyceride* 4.00%
- SunBoost ATB Natural - Kobo Products: *Argania Spinosa Kernel Oil (And) Tocopheryl Acetate (And) Bisabolol* 2.00%

Part 2

- ZnO-PCC-ASGP4 - Kobo Products: *Zinc Oxide (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 25.00%
- BWRO-ASGP3 - Kobo Products: *Iron Oxides (CI 77491) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 3.00%
- BWYO-ASGP3 - Kobo Products: *Iron Oxides (CI 77492) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 3.00%
- BWBO-ASGP3 - Kobo Products: *Iron Oxides (CI 77499) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 2.80%

Part 3

- P.water - Deionized Water 25.00%
- Dub Diol - Stearinerie Dubois: *Methylpropanediol* 2.00%
- Glycerin - Univar: *Glycerin* 2.00%
- Mg Sulfate Hept - Fisher Scientific: *Magnesium Sulfate Heptahydrate* 1.00%
- Lexguard Natural MB - Inolex: *Glyceryl Caprylate (and) Glyceryl Undecylenate* 0.40%
- Symsave H - Symrise: *Hydroxyacetophenone* 0.40%

Part 4

- BN02-I2 - Kobo Products: *Boron Nitride (And) Isopropyl Titanium Triisostearate* 1.50%
- MSS-500/N - Kobo Products: *Silica* 1.50%

Manufacturing Procedure

1. Prepare Part 1 and homogenise under Silverson square hole head at 5000 RPM for 5 minutes.
2. Add Part 2 under propeller stirrer at 800-900 RPM to disperse the pigments.
3. Prepare Part 3.
4. Make emulsion by adding Part 3 to Part 1 under propeller stirrer at 1000 RPM. Once all the water is taken in, homogenise under Silverson round hole head at 3000 RPM for 3 minutes.
5. Add the powders of Part 4 under propeller stirrer.

Description

This silicone free liquid foundation is formulated for Skin Type VI, providing even toned coverage. It contains Kobo's natural origin ASGP treated pigments, which disperse with low shear into the selected high spreadability emollients, to give the deep and rich color of foundation. The opacity is provided by ZnO-PCC-ASGP4, a particularly opaque grade of Zinc Oxide treated with ASGP, which is offered as an alternative to pigmentary TiO₂. KOBOGUARD® NATURAL 2063-CCT, a naturally derived film former extracted from pinewood, was added to increase the adhesion of the colour film. BN02-I2, ITT treated version of 2 micron Boron Nitride contributes to the coverage. For the lighter shades of the same foundation, it is used at a higher concentration to make up for the reduced opacity resulting from a lower concentration of Iron Oxides. MSS-500/N, a non-absorbing silica microsphere is used to improve spreadability and lower tack.



KLP-317-EU

Soft Lips Brilliant Natural Lipstick TiO₂ Free Nude Shade

Part 1

- Schercemol DISD - Lubrizol: *Diisostearyl Dimer Dilinoleate* 25.80%
- DUB SSIC - Stearinerie Dubois: *Stearinerie Dubois* 20.00%
- Eutanol G - BASF: *Octyldodecanol* 12.10%
- Schercemol PTID - Lubrizol: *Triisostearoyl Polyglyceryl-3 Dimer Dilinoleate* 10.00%

Part 2

- ZnO-PCC-ASGP4 - Kobo Products: *Zinc Oxide (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 15.00%
- BWYO-ASGP3 - Kobo Products: *Iron Oxides (CI 77492) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 1.00%
- BWRO-ASGP3 - Kobo Products: *Iron Oxides (CI 77491) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 0.90%
- BWBO-ASGP3 - Kobo Products: *Iron Oxides (CI 77499) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid* 0.30%

Part 3

- MSS-500/3H - Kobo Products: *Silica* 1.00%

Part 4

- Sunflower Wax - Koster Keunen: *Helianthus Annus (Sunflower) Seed Wax* 6.30%
- Lipex SMP - AAK: *Hydrogenated Vegetable Oil* 3.50%
- Akofine P - AAK: *Hydrogenated Vegetable Oil* 2.50%
- Lipovol GTB - Vantage: *Tribehenin* 1.60%

Manufacturing Procedure

1. Combine Part 1.
2. Add Part 2 and disperse pigments using Silverson Square hole head at 5000 RPM for 3-5 minutes.
3. Add Part 3 and disperse at 3000 RPM for 1 minute.
4. Add Part 4 and heat to 90 degrees C, keep at 90 degrees C for 10 minutes whilst stirring.
5. Pour into moulds at 90 degrees C and refrigerate for 15 minutes.

Description

This nude colored lipstick that glides on the skin easily with a brilliant shine, is TiO₂ free! Instead of TiO₂, ZnO-PCC-ASGP4 has been used to provide the opacity and whiteness in the nude shade. All the pigments have the ASGP surface treatment which makes them easy to disperse in the liquid phase. There is MSS-500/3H, a silica microsphere which helps to support the structure of the lipstick and also helps in preventing sweating.

KOBO**ZnO PCC**

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