

Surface Treatment Map

Treatment Code	INCI	Properties	Formula Applications	Dispersion Availability
Lipophilic Treatment				
ITT	<i>Isopropyl Titanium Triisostearate</i>	<ul style="list-style-type: none"> Highly Lipophilic Allows high pigment loading in esters, mineral oils or hydrocarbons; good for cream-to-powder formulations Improves compressibility in pressed powders and reduces breakage Excellent affinity to the skin Creamy skin feel US 5108736A 	KBL-015A KLF-223A KLP-179A KCP-018 KLG-082 KLP-234-BR KCP-043A-EU KLP-133A-BR KPP-099C KHP-009A KLP-153 KPP-105B-BR KLF-220B-BR KLP-162 KPP-109-EU	(CO) <i>Ricinus Communis (Castor) Seed Oil</i> (INB/INW) <i>Isononyl Isononanoate (PMLVP) Isododecane (PT1BM) Phenyl Trimethicone (SW) Synthetic Wax (WE) Polyglyceryl-4 Isostearate, Cetyl PEG/PPG-10/1 Dimethicone, Hexyl Laurate</i>
Silicone Treatment				
11S	<i>Triethoxycaprylylsilane</i>	<ul style="list-style-type: none"> Hydrophobic; Lipophilic Compatible with esters, oils & silicones Stable at pH of 3 No hydrogen potential Nice spreadability, creamy, wet feeling 	KBL-024 KLP-175B KPP-094A-BR KEY-048E-BR KLP-177 KPP-131B KLF-233-BR KLP-236 KSL-401 KLF-264D KPP-064P	(FAS) <i>Cyclopentasiloxane, PEG/PPG-18/18 Dimethicone;</i> (FAND) <i>Dimethicone, PEG/PPG-18/18 Dimethicone</i>
DS	<i>Dimethicone</i>	<ul style="list-style-type: none"> Hydrophobic Good slip and lubricity over methicone treatment Good for wet/dry powders and W/Si emulsions 	Recommended Applications: W/Si Emulsions, Hot Pours, Gels, Powders	-
MS	<i>Methicone</i>	<ul style="list-style-type: none"> Very Hydrophobic Stable at pH 3-9 Good for wet/dry powder and W/Si Emulsions Not very compatible with esters, oil and water based emulsions 	Recommended Applications: W/Si Emulsions, Hot Pours, Powders, Anhydrous Gels	-
Hybrid Treatment				
11SP	<i>Triethoxycaprylylsilane (and) Polyhydroxystearic Acid</i>	<ul style="list-style-type: none"> Hydrophobic; Lipophilic Disperses easily into oil phase and develops full color fast Silky skin feel Pressed powders can be made using silicone as the sole liquid binder US 9662280B2; US 9254398B2; WO 2010111279; CN 102361702B; JP 6184099B2; EP 2411162A4 	KCC-014A-BR KLF-158B KHP-004D KLF-327A	-
TTB	<i>Isopropyl Titanium Triisostearate (And) Triethoxysilylethyl Polydimethylsiloxyethyl Dimethicone</i>	<ul style="list-style-type: none"> Hydrophobic; Lipophilic "Superdispersible" in all media Stable over a range of pH Good skin affinity to skin, resulting in long wear US 10064792B2 	KBL-032A-EU KLF-224 KPP-102A KEL-015 KLF-269 KLF-220-BR KPP-067B	(CM) <i>Cyclopentasiloxane</i> (FAS) <i>Cyclopentasiloxane, PEG/PPG-18/18 Dimethicone</i> (FADM) <i>Dimethicone, PEG/PPG-18/18 Dimethicone</i>

Fluorinated Treatment

FS

*Perfluorohexylethyl
Triethoxysilane*

- Hydrophobic; Lipophobic
- Pigments display long wear and stay true color
- Excellent spreadability
- Suitable for wet/dry formulas and dry water formulas
- Environmentally friendly; No Perfluorooctanoic Acid (PFOA)
- Licensee of Avon US 6315990

KEY-046A-BR KLP-237A KPP-112
KLP-167A KMA-093 KPW-015G
KLP-168 KPP-108A-EU

(FAS) Cyclopentasiloxane,
PEG/PPG-18/18 Dimethicone

Recommended Applications:
Emulsions, Hot Pours, Powders

Natural Treatment

ASGP

*Stearoyl Glutamic Acid
(And) Polyhydroxystearic
Acid*

- Hybrid treatment
- Hydrophobic; superdispersible
- Minimal energy use during grinding
- Quick, uniform color development
- Creamy feel, improved wear; aid in pressing powders
- US 9662280B2

KCC-022 KLP-269A KPP-134A
KLF-326 KLP-293-EU KSL-475B-EU

Recommended Applications:
Emulsions, Hot Pours,
Powders, Anhydrous Gels

ASG

*Stearoyl Glutamic
Acid*

- Hydrophobic
- Ecocert approved
- Aluminum free
- Imparts a creamy feel particularly in powders
- Offers good skin adhesion of pigment to the skin
- Pigments disperse easily into recommended application

KBL-018B KLP-145 KPP-116
KCP-050 KMU-018H KPW-028A
KEY-039G KMU-023B
KLP-122B KPP-104C

Recommended Applications:
Emulsions, Hot Pours, Powders,
Anhydrous Gels

(DO) Diisostearyl Malate,
Octyldodecanol
(GCB) Caprylic/Capric Triglyceride
(GCG) Caprylic/Capric Triglyceride

MM

Magnesium Myristate

- Hydrophobic; Lipophilic
- Vegetable derived
- Highly creamy feel and low odor
- Good adhesion to the skin
- Improved wear
- Excellent pressability

KCP-035

Recommended Applications:
Hot Pours, Powders

NJE

Jojoba Esters

- Hydrophobic; Lipophilic
- Ecocert Approved
- Odorless; Excellent heat stability
- Creamy feel
- Good skin affinity
- Good pressability in powders
- US 8623386B2; WO 2009126859

KEY-136A KLG-092B
KFL-305 KLP-125
KMU-029A

Recommended Applications:
Emulsions, Hot Pours, Powders, Gels

(OD) Octyldodecanol
(JOH) Simmondsia Chinensis
(Jojoba) Seed Oil

NOE

*Hydrogenated Olive Oil
Stearyl Esters*

- Hydrophobic; Lipophilic
- Odorless; Excellent heat stability
- Soft and emollient feel
- Good skin affinity
- Powders can be pressed w/o additional dry binders

KPP-127

Recommended Applications:
Anhydrous Hot Pours, Powders

CL & NPC

*Lecithin
&
Hydrogenated Lecithin*

- Hydrophobic yet moisturizing
- Highly creamy feel and good affinity to the skin
- Heat sensitive (CL)

KLF-259D-BR (NPC)

Recommended Applications:
Hot Pours (NPC), Powders

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