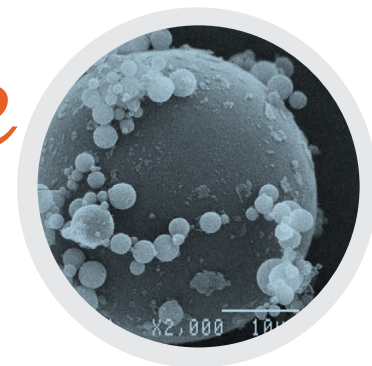


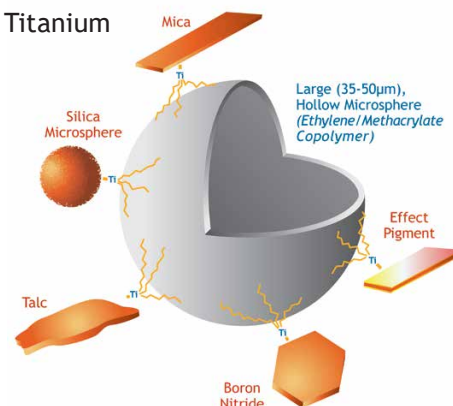
Hollow Microsphere Complexes



Microsphere Complexes: Kobo's patented technology covalently bonds Isopropyl Titanium Triisostearate to various substrates such as Platelets, Spheres and Pigments.

The resulting complex offers the **best balance of properties possible**, including:

- lightweight, powdery afterfeel
- soft focus effect
- high oil absorption
- pearlescent effect



5356617A Pigment-material-microsphere complexes and their production

Trade Name	INCI Name	Size (µm)	Oil Abs (g/100g)	Bulk Density (g/in3)
DSPCS-I2	<i>Silica (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	23	280	1.0
DSPCS/20N-I2		45	550	0.7
DSPCS/3H-I2		30	375	0.7
SPCAT-I2	<i>Talc (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	26	193	1.0
SPCM-I2	<i>Mica (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	29	185	1.4
New SPCBN30-I2	<i>Boron Nitride (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	45	290	0.5
SPC/BLACK NF-I2	<i>Iron Oxides (CI 77499) (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	25	224	0.9
SPC/KTZ INTERVAL RED-I2	<i>Mica (And) Titanium Dioxide (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	26	205	1.3



KMA-074E

Conventional Mascara with KOBOGUARD® 50AMP

Part 1

● Paraffin Wax 4344 - Strahl & Pitsch: <i>Paraffin</i>	7.50%
● Lipo® GMS-450 - Vantage: <i>Glyceryl Stearate</i>	4.00%
● Carnauba Wax SP 63P - Strahl & Pitsch: <i>Copernicia Cerifera (Carnauba) Wax</i>	3.00%
● Dermofat 4919 - Alzo Chemical: <i>Stearic Acid</i>	3.00%
● KOBOGUARD® HRPC - Kobo Products: <i>Hydrogenated Polycyclopentadiene (And) Polyethylene (And) Copernicia Cerifera (Carnauba) Wax (And) Tocopherol</i>	2.00%
● Ganex® V-216 - Ashland: <i>VP/Hexadecane Copolymer</i>	1.50%
● Apifil CG - Gattefosse: <i>PEG-8 Beeswax</i>	1.00%
● Permethyl® 104A - Presperse: <i>Polyisobutene</i>	1.00%

Part 2

● Deionized Water - <i>Water</i>	15.00%
● BLACK NF - Kobo Products: <i>Iron Oxides (CI 77499)</i>	10.00%
● PVP K-30 - Ashland: <i>Poly(Vinyl Pyrrolidone)</i>	0.80%
● Lexgard® O - Inolex: <i>Caprylyl Glycol</i>	0.20%
● Prisorine™ 3515 - Croda: <i>Isostearyl Alcohol</i>	0.10%
● S-6W-6 - Shin-Etsu: <i>Simethicone</i>	0.05%

Part 3

● Deionized Water - <i>Water</i>	25.85%
● Butylene Glycol - Ruger Chemical: <i>Butylene Glycol</i>	2.00%
● KAOLIN - Imerys: <i>Kaolin</i>	2.00%
● KoboMica S-25 - Kobo Products: <i>Mica</i>	2.00%
● MSS-500W - Kobo Products: <i>Silica</i>	2.00%
● AMP ULTRA® PC 2000 - Angus Chemical Company: <i>2-Amonoisobutanol</i>	0.50%
● Natrosol® 250 HHR CS - Ashland: <i>Hydroxyethylcellulose</i>	0.30%
● Keltrol® CG - CP Kelco: <i>Xanthan Gum</i>	0.20%
● Trisodium EDTA - Spectrum Chemical: <i>Trisodium EDTA</i>	0.10%

Part 4

● KOBOGUARD® 50AMP - Kobo Products: <i>Acrylates/Ethylhexyl Acrylate Copolymer (And) Water (And) Aminomethyl Propanol</i>	14.50%
● DSPCS/20N-I2 - Kobo Products: <i>Silica (And) Ethylene/Methacrylate Copolymer (And) Isopropyl Titanium Triisostearate</i>	0.60%

Part 5

● Euxyl® PE 9010 - Schulke & Mayr: <i>Phenoxyethanol (And) Ethylhexylglycerin</i>	0.80%
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Manufacturing Procedure**Oil Phase:**

1. Combine Part 1 in side beaker. Heat to 85-90°C with slow agitation with spatula.

Grind Phase:

2. Add water to beaker. Prop mix & heat to 60°C.

3. Add PVP, followed by Isostearic Alcohol, Caprylyl Glycol, & Simethicone.

4. Sprinkle Black NF into the vortex. Mix until pigment is wet out.

5. Transfer to homogenizer for 30 minutes.

Water Phase: (main beaker)

6. Record tare weight of main beaker & sweep.

7. Add Water to the main beaker. Begin heating to 60°C with prop mixing.

8. Add Trisodium EDTA.

9. Pre-mix Butylene Glycol, Natrosol®, & Xanthan Gum.

10. Add grind phase.

11. Heat to 85°C.

12. Add AMP Ultra to batch. Then sprinkle in MSS-500W, Kaolin, & KoboMica S-25.

13. Add Oil phase into water phase, maintain mixing & temperature around 85°C for 15 mins.

14. Begin to air cool.

15. Change to sweep when the bulk becomes thicker.

16. Pre-mix film former with DSPCS/20N-I2 and add to batch at 45°C.

17. Add Euxyl® PE 9010.

18. Mix together for 5 minutes & QS missing weight with H2O.

29. Cool & mix until bulk reaches 28°C.

Description

This conventional mascara features Kobo's high oil absorption microsphere complex, **DSPCS/20N-I2**, for length, volume and long-lasting curl. KOBOGUARD® HRPC plasticizes the wax complex, and allows the mascara to be buildable upon application. KOBOGUARD® 50AMP also contributes to water-resistant properties. BLACK NF provides deep black color to the mascara. The combination of KoboMica S-25 and MSS-500W provides thickness and body, while contributing to volume on the lashes.