

Koboguard[®]

Wax-Resin Composites



KOBOGUARD[®] HRCC and **KOBOGUARD[®] HRPC** are ternary composites made of a resin (Hydrogenated Polycyclopentadiene) and waxes that exhibit unique synergy among all components. They provide adhesion and substantivity of the cosmetic formulation to the skin, hair, nail or lashes, improve water resistance, rub resistance and transfer resistance, impart gloss and help suspend pigments while maintaining excellent color stability and being odorless, which makes them ideal substitutes for rosins and their counterparts.

Because of their unique composite structure, **KOBOGUARD[®] HRCC** and **KOBOGUARD[®] HRPC** have improved solubility over conventional resin and can be quickly incorporated into formulations. They are recommended for use in emulsions, anhydrous gels, hot pours and can be melted into the liquid binder of pressed powders. The recommended use level is 0.1 to 25% and the melting points are 80-90 °C.

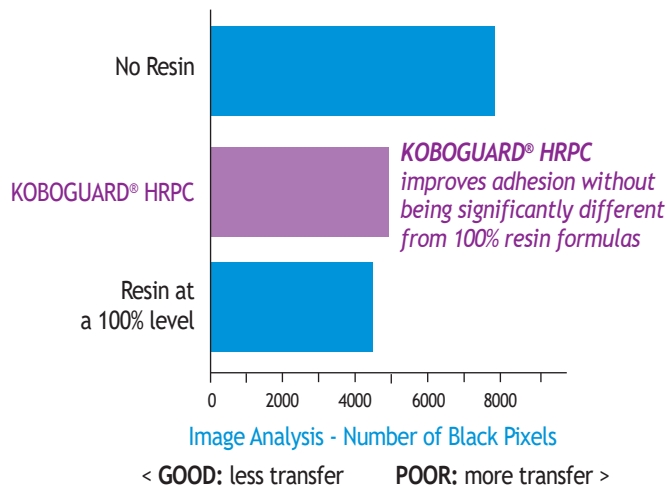
US 8679464B2, EP 2273972B1, WO 2009126854A3, JP 2011516575A
Ternary and quaternary wax-resin composites for use in cosmetics and pharmaceutical preparations

Trade Name	INCI Name
KOBOGUARD[®] HRCC	Hydrogenated Polycyclopentadiene (And) Hydrogenated Castor Oil (And) Copernicia Cerifera (Carnauba) Wax (And) Tocopherol
KOBOGUARD[®] HRPC	Hydrogenated Polycyclopentadiene (And) Polyethylene (And) Copernicia Cerifera (Carnauba) Wax (And) Tocopherol

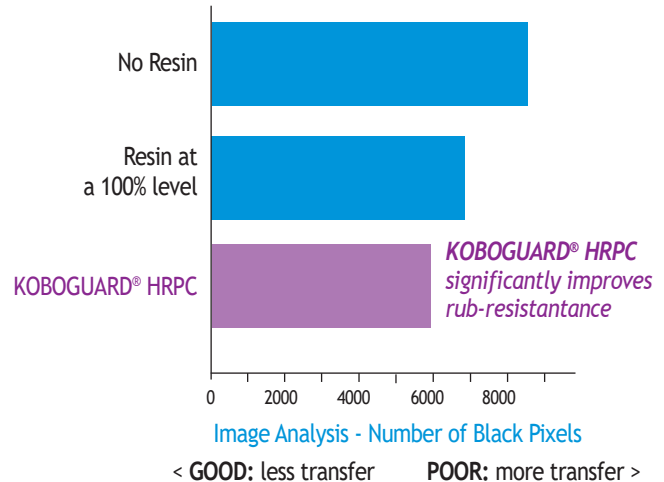
New **KOBOGUARD[®] HRCC** uses Castorwax instead of Polyethylene Wax, a synthetic polymer present in **KOBOGUARD[®] HRPC**. Because Castorwax is a more polar material than Polyethylene, HRCC shows enhanced solubility in CCT and Castor Oil making it better in lip products.

*Both products are composed of Carnauba Wax which originates in Brazil and meets the Brazilian Biodiversity Law (Federal Law No. 13,123/2015).
 These products are Halal compliant.*

Adhesion Transfer Results for KOBAGUARD[®] HRPC
 Water-in-Silicone Formulations



Rub-Resistance Transfer Results for KOBAGUARD[®] HRPC
 Water-in-Silicone Formulations





KMA-080A

Lash Injection Mascara with **KOBOGUARD®** HRCC

Part 1

- Deionized Water - Water 38.45%
- Natpure Film AP - Sensient Cosmetic Technologies:
Pullulan (And) Sorbitol (And) Trehalose (And) Acacia Senegal Gum 0.50%

Part 2

- Butylene Glycol - Ruger Chemical: *Butylene Glycol* 2.00%
- Glycerin U.S.P. F.C.C. 96% - Ruger Chemical: *Glycerin* 1.00%
- Natrosol® 250 HHR CS - Ashland: *Hydroxyethylcellulose* 0.30%

Part 3

- Symdiol® 68 - Symrise: *1,2-Hexanediol (And) Caprylyl Glycol* 0.50%

Part 4

- **GLW60GBSP** - Kobo Products: *Iron Oxides (CI 77499) (And) Water (And) Glycerin (And) Sodium Polyacrylate (And) Cellulose Gum* 20.00%

Part 5

- AMP Ultra® PC 2000 - Angus Chemical Company:
Aminomethyl Propanol 1.25%

Part 6

- Carnauba Wax SP 63P - Strahl & Pitsch:
Copernicia Cerifera (Carnauba) Wax 8.00%
- **KOBOGUARD® HRCC** - Kobo Products: *Hydrogenated Polycyclopentadiene (And) Hydrogenated Castor Oil (And) Copernicia Cerifera (Carnauba) Wax (And) Tocopherol* 5.00%
- Lipo® GMS 450 - Vantage: *Glyceryl Stearate* 5.00%
- **Plandool™-LG1** - Nippon/Kobo Products:
Phytosteryl/Behenyl/Octylododecyl Lauroyl Glutamate 5.00%
- Dermofat 4919 - Alzo Chemical: *Stearic Acid* 3.00%
- **HL7M5** - Kobo Products:
Hydrogenated Polyisobutene (And) Silica 2.00%
- **PM WAX 82** - Toray/Kobo Products:
Polyethylene (And) Microcrystalline Wax 2.00%

Part 7

- KAOLIN - Imerys: *Kaolin* 2.00%
- **KoboMica S-25** - Kobo Products: *Mica* 1.00%
- **MSS-500/20N** - Kobo Products: *Silica* 1.00%
- **UP-611** - Nikko/Kobo Products: *HDI/Trimethylol Hexyllactone Crosspolymer (And) Methyl Methacrylate Crosspolymer* 1.00%
- **NFCB-10D-2R** - Daito/Kobo Products: *Nylon-6 (And) Black 2 (And) Silica* 0.30%

Part 8

- Phenoxetol™ - Clariant: *Phenoxyethanol* 0.70%

Manufacturing Procedure

1. Heat Part 1 to 85 °C with propeller mixing. Maintain heat.
2. Premix Part 2 and add to Part 1.
3. Add Part 3 followed by Parts 4 and 5.
4. Heat Part 6 to 90 °C in side beaker with prop mixing.
5. Add Part 6 to Parts 1-5 in main beaker when both phases are at 85 °C.
6. Turn off heat and begin to cool batch. Slowly add Part 7 when batch reaches 65 °C.
7. Once powders are evenly dispersed, switch to side sweep blade.
8. Add Part 8 at 45 °C.
9. Cool and mix until batch reaches 28 °C.

Description

Lash Injection Mascara provides lengthening and volumizing properties to the lashes. A combination of MSS-500/20N, UP-611 and KoboMica S-25 provides lashes with dramatic volume. NFCB-10D-2R, a nylon fiber that contains Black 2, gives lashes a lengthening effect while enhancing the intense black color. GLW60GBSP is a black iron oxide dispersion that imparts color and is an easy addition into the water phase. PM WAX 82 is a combination of waxes used for volumizing effect and lash shape hold throughout application.

KOBOGUARD® HRCC provides a plasticizing effect to the wax complex, and allows the mascara to be buildable upon application. Plandool™-LG1 improves malleability of the wax complex which increases bulk transfer to the lashes. HL7M5 is a fumed silica gellant that gives the formula creaminess and aids in a smooth application.



KEL-033

Easy Glide-On Eyeliner Pencil

Part 1

- SALACOS® 99 - Ikeda: *Isononyl Isononanoate* 24.35%

Part 2

- **KTZ® EBONY** - Kobo Products: *Iron Oxides (CI 77499) (And) Mica* 20.00%
- ZINC STEARATE - Soda Nikka Co., Ltd.-JPY: *Zinc Stearate* 5.00%

Part 3

- SISTERNA A10E-C - Sisterna BV: *Acetylated Sucrose Distearate* 10.65%
- CANDELILLA WAX - Strahl & Pitsch: *Euphorbia Cerifera (Candelilla) Wax* 10.00%
- CARNAUBA WAX SP63 - Strahl & Pitsch: *Copernicia Cerifera (Carnauba) Wax* 10.00%
- **KOBOGUARD® HRPC** - Kobo Products: *Hydrogenated Polycyclopentadiene (And) Polyethylene (And) Copernicia Cerifera (Carnauba) Wax (And) Tocopherol* 10.00%
- Softisan® 100 - Cremer Oleo: *Hydrogenated Coco-Glycerides* 10.00%

Manufacturing Procedure

1. Combine Parts 2 and 3. Prop mix high shear at 80 °C.
2. Slowly add Part 1 to batch. Mix at 80 °C.
3. Pour into components at 80 °C.

Description

This Easy Glide-On Eyeliner Pencil delivers intense black color and a buttery glide resulting in a subtle, soft finish and precise line. This waterproof, anhydrous formula contains KTZ® EBONY which gives the formula a unique pearlescent effect with a smoky black color finish that works well with smudger. **KOBOGUARD® HRPC** is a film former that provides good wear, waterproofness and skin adhesion.

KOBO**Koboguard® WRC**

www.koboproducts.com