

Kustom Kure Energy-Curable Litho Ink Materials



Our Kustom Group Energy-Curable products are designed to provide superior litho performance without misting or sacrificing any cure speed. These products provide excellent adhesion to various substrates such as plastic, foil-coated and poly-coated board, as well as paper. Most significantly, these products will allow the ink maker to achieve the highest gloss possible in an Energy-Curable ink system. Some of our Energy-Curable products are listed as follows:

Vehicles for Paper

KS-276 **Low Tack UV Gel Vehicle:** KS-276 is a low tack, tight-gel modified polyester vehicle. KS-276 is proprietary chemistry unique to Kustom Group. It is our best UV vehicle for litho and rivals that of conventional oil-based inks. It has outstanding hold-out and gloss. Recommended for all coated paper applications.

- Tack: 20 – 24 @ 400 rpm/1'
- Viscosity: 700 – 1000 Poise
- Yield: 6000 – 10,000 dynes/cm²

KS-236 **Gelled Fatty Acid Modified Hexa-functional Polyester:** Excellent misting, litho properties and good pigment wetting. KS-236 can be used as a dispersion vehicle to improve rheology. Use for paper and plastic substrates.

- Tack: 4 – 8 @ 400 rpm/1'
- Viscosity: 100 – 300 Poise
 - Yield: 1000 – 3000 dynes/cm²

KS-386 **Fast Cure UV Litho Gel Vehicle:** KS-386 is recommended as a gel letback vehicle for UV-curable lithographic inks where high performance and sharp printing are desired. Typical applications include commercial sheetfed and folding carton work on paper, paperboard and other substrates

- Tack: 23 – 26 @ 400 rpm/1'
- Viscosity: 600 – 800 Poise
- Yield: 6000 – 8000 dynes/cm²

KS-291 **UV Free Flow Vehicle for Paper:** KS-291 is an economical companion free flow vehicle for paper. KS-291 is proprietary chemistry with excellent litho properties unique to Kustom Group.

- Tack: 24 – 28 @ 400 rpm/1'
- Viscosity: 400 – 600 Poise

FOR YOUR PROTECTION:

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- KS-299** **UV Epoxy F.F. for Paper:** Epoxy cut in 40% TMPTA. It is economical and has fast cure.
- Viscosity: 75 – 85 Poise
- KS-265** **UV Forms Gel Vehicle:** For UV forms and all uncoated stocks. Properties include low tack, high hold out, and fast cure. Typically, little or no free monomer is needed. Inks based off of KS-265 are fast-curing, have high hold-out and can be formulated to very low tacks.
- Tack: 7.0 – 9.0 @ 400 rpm/1'
 - Viscosity: 300 – 500 Poise
 - Yield: 800 – 1500 dynes/cm²
- KS-383** **Photoinitiated UV Extender Vehicle for Paper:** KS-383 is a UV vehicle that already includes a unique photoinitiator blend, so little or no extra photoinitiator is required when formulating ink. KS-383 is a balanced extender with excellent litho properties built into it.
- Tack: 9 – 12 @ 400 rpm/1'
 - Viscosity: 500 – 800 Poise

Vehicles for Plastic

- KS-369** **UV Gel Vehicle for Plastic:** KS-369 exhibits excellent adhesion to a variety of plastic substrates. Other performance properties include high viscosity, reduced ink misting, and high hold-out. Use on rigid plastics (Polyethylene, Polypropylene, etc.).
- Tack: 20 – 24 @ 400 rpm/1'
 - Viscosity: 1500 – 2000 Poise
 - Yield: 8000 – 12,000 dynes/cm²
- KS-331** **UV/EB Metal Deco Vehicle:** High viscosity, free flow vehicle for UV/EB metal deco lithographic inks. It has excellent adhesion to a variety of plastic substrates.
- Viscosity: 2000 – 4000 Poise
- KS-214** **UV Free Flow Vehicle for Plastic:** KS-214 is recommended as an adhesion promoter for UV-curable lithographic and flexographic inks where high performance and good adhesion are desired.
- Viscosity: 400 – 800 Poise
- KS-282** **UV Gel Vehicle for Plastic:** KS-282 exhibits the best combination of adhesion and cure speed. Typical applications include a variety of plastics and other non-porous substrates.
- Tack: 25 – 30 @ 400 rpm/1'
 - Viscosity: 650 – 900 Poise
 - Yield: 5000 – 8000 dynes/cm²

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KS-357 **Highly Functional Urethane Vehicle:** KS-357 is recommended as an additive to increase cure speed and hardness without additional photoinitiator. KS-357 has an excellent combination of cure and flexibility. KS-357 is ideal at low percentages (3-10%) in plastic inks to improve cure and scratch without adversely affecting adhesion.

- Viscosity: 250 – 350 Poise

KS-343 **Photoinitiated Extender Vehicle for Plastic:** KS-343 is recommended as an all-in-one extender vehicle for UV-curable lithographic inks where high performance and fast cure are desired. Minimal* or no photoinitiator is required when using KS-343, as a unique photoinitiator blend is already incorporated into the vehicle.

- Tack: 6 – 8 @ 400 rpm/1'
- Viscosity: 200 – 300 Poise

UV Dispersion Vehicles

KS-322 **High Pigment Load Dispersant Grinding Vehicle:** KS-322 is a higher concentrated, lower viscosity version of KS-204. It is an excellent choice for dry grinding in carbon black pigment. Use at 10 - 15% in place of dispersants. Use in flexo, UV inkjet, and as an additive in offset litho dispersions. Good adhesion to plastic substrates.

- Viscosity: 45 – 60 Poise

KS-204 **UV Grinding Vehicle:** KS-204 is an all purpose grinding vehicle for UV/EB lithographic, dry offset and flexographic ink. This is proprietary chemistry with truly unique adhesion and wetting properties on all nonporous substrates, including most plastics and metal deco applications.

- Tack: 7 – 11 @ 400 rpm/1'
- Viscosity: 150 – 225 Poise

KS-307 **Fatty Acid Modified Hexa-functional Polyester:** Recommended as an additive for flow, flexibility and pigment wetting. KS-307 has good litho properties and cure speed.

- Viscosity: 65 – 85 Poise

KS-739 **UV Flushing and Grinding Vehicle:** KS-739 is ideal for hybrid ink. It is an excellent wetting vehicle and is especially effective for hard-to-disperse pigments, such as Lithol Rubine, Carbon Black, and Alkali Blue, among others. KS-739 exhibits excellent litho properties and will improve flow and transfer. KS-739 has only moderate cure speed and may require the addition of a higher reactive vehicle for some applications.

- Viscosity: 400 – 700 Poise

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Liquid Photoinitiators

- KS-226 High Potency Photoinitiator:** KS-226 is a balanced, stand-alone, 100% active photoinitiator for litho, flexo and screen inks. Use at 3 - 6% levels or as needed for adequate cure.
- Color: yellow
 - Viscosity: 05 – 15 Poise
- KS-210 Photoinitiator for White Inks:** KS-210 is effective as a stand-alone photoinitiator for litho, flexo, and screen white inks. Use at 7 - 10% levels or as needed for adequate cure.
- Color: clear
 - Viscosity: 18 – 25 sec. #2 Zahn
- KS-203 High Viscosity All-In-One Photoinitiator:** KS-203 is an economical photoinitiator that includes top- and through-cure properties. Its high viscosity will not lower final ink tack or viscosity. Use at 5 - 8% levels or as needed for adequate cure. Recommended for litho applications.
- Color: light yellow
 - Viscosity: 1500 – 2500 Poise

Additives for UV/EB Inks

- KS-297 High Cross-Linking Monomer:** Increases cure speed and hardness without additional photoinitiator. Usage level 1 - 4%; too much can cause loss of adhesion and brittleness.
- KS-388 UV Silicone Additive:** Use as a silicone additive for leveling, wetting, and lowering COF (Coefficient of Friction) in UV coating and ink systems. KS-388 has a recommended dosage of 0.2 - 1%.
- KS-347 Defoamer for UV/EB:** Powerful defoamer recommended for use in UV-curable coatings and overprint varnishes. **Not printable.**
- KB-756 Kentucky Lube for UV/EB:** Provides lubrication of the ink on the plate and blanket cylinders. Prevents piling and picking problems and reduces misting by allowing ink to operate at a higher tack. Usage level is 2 - 5%.
- KB-147 Dry Talc:** Dry additive used to reduce misting. Usage level is 1 - 2%.
- KS-279 UV Stabilizer:** In-can polymerization inhibitor. Usage level is 0.5 - 1%.

We also carry standard monomers, oligomers and gelled versions of both.

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