

# Digital Coating Products

## UV Coatings

- KS-427 Gloss UV coating for application over various toner based inks such as HP Indigo, Canon, and iGen on offset paper for anilox coaters
- KS-427HV High viscosity gloss UV coating for application over various toner based inks such as HP Indigo, Canon, and iGen on paper. Best for absorbent papers, high volume anilox or roller coaters.
- KS-439 Gloss UV coating for use over Ink Jet ink on Ink Jet paper.
- KS-439LV Lower viscosity version of KS-439 for smoother lay when a primer is employed.
- KS-450 Gloss UV coating for application over Ink Jet Inks on untreated offset paper and light weight paper board
- KS-451 Matte UV coating for use over HP Indigo inks.
- KS-507 Highest Gloss UV coating for application over Ink Jet Inks on Ink Jet Paper or other very absorbent paper substrates. Must have very high anilox volume of 25+ BCM or a heated coating reservoir.

## Aqueous Coatings

- KS-9850 Gloss AQ coating for application over HP Indigo (sizing dependent) or Xerox digital ink printed on paper and paperboard substrates.
- KS-9851 AQ Primer coating for application over HP Indigo (sizing dependent) digital ink and aqueous ink jet inks printed on paper and paperboard substrates.
- KS-9852 Gloss AQ coating for application over HP Indigo (sizing dependent) digital ink printed on paper and paperboard substrates.
- KS-9853 Satin AQ coating for application over HP Indigo (sizing dependent) digital ink printed on paper and paperboard substrates.
- KS-9855 Matte AQ coating specifically formulated for application over Xerox iGen printed material.
- KS-9856 Matte AQ coating specifically formulated for application over Ricoh printed material and HP Indigo (sizing dependent) digital ink on paper and paperboard.

## Oil-Based Overprint Varnishes

- KB-3164 Gloss Litho Sheetfed Overprint for HP Indigo
- KB-3179 Satin Litho Sheetfed Overprint for HP Indigo
- KB-3187 Matte Litho Sheetfed Overprint for HP Indigo

## HP Indigo Sizing (on paper under ink)

- KS-9845 AQ Digital Sizing/Primer

## Kentucky Shine

- KS-190 High Body, Press Stable Gloss OPV for use over Xerox, Xerox iGen and HP Indigo printed paper and paperboard.

Please refer to the technical data sheet for additional application and product information.

# Digital Information Check List

In order to offer the best choice of top coat for a particular digital print, it is necessary to get some information about the substrate, ink, coater and end use properties needed. Answering the questions below should help in point to the correct recommendation:

## **Substrate**

Is the paper offset paper or inkjet paper?

Is the substrate something other than paper? If so, specify?

## **Sizing**

Is there a sizing (coating) applied on the paper **before** the ink is applied? If so, what brand name is it?

## **Digital Ink**

Is the ink being applied to the substrate dry toner, wet toner, AQ inkjet, UV inkjet, other?

## **Type of Press**

Who is the manufacturer of the press involved? What model is it?

## **Coating Unit**

Is the coating unit set up in-line or off-line?

Is the coating unit an anilox coater or a roller coater?

If an anilox, what cell volume in BCM's does it have?

What type of pump does the coating unit have to push the coating?

What diameter are the lines leading to and from the coater from the pump?

## **Type of coating required**

Are you looking for a Litho OPV, AQ Primer, AQ Coating, UV Primer or UV Coating?

If you are looking for a UV, what type of UV lamps does the unit have?

## **Coating Requirements**

Does the final piece have to pass a tape test? If so, what type of tape?

Does the final piece have to pass a scratch test? If so, outline the procedure?

Does the final piece have to allow for postage stamp adhesion?

Are there any other end use requirements needed of the coating?

# Technical Data Sheet

## KS-427

Kustom Kure High Gloss  
UV Coating for Digital

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### Product Description

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Digital is one of the fastest growing segments of the printing industry. However, because of the many different digital inks available, the ability to topcoat is a challenge. With this in mind, Kustom Group developed **KS-427**. **KS-427** is specifically formulated as a high gloss UV coating for application over various toner based inks such as HP Indigo, Canon, and iGen. Coating problems with these inks can be solved most of the time with the right UV coating. **KS-427** has an excellent track record over these types of digital inks. Wax based toners such as Konica, and Canon are more of a challenge as they tend to repel UV coating. **KS-427** is still an option with the wax based toners, but adhesion and performance can be greatly improved by preheating the inks with IR lamps prior to UV coating and curing. We also have a higher viscosity version, **KS-427HV**, which gives ultimate hold-out over absorbent stock. A blanket coater or slightly higher BCM anilox may be needed for best performance with **KS-427HV**. Different digital inks may require different type UV coatings. Contact your KUSTOM Group representative for other potential UV coating options for digital ink.

### Performance Characteristics

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- Excellent gloss, clarity, and cure response
- Good adhesion to digital inks (and hard to adhere to conventional inks).
- Not considered imprintable, foil-stampable, glueable, etc.
- Produces a very smooth finish when applied by a roller or flexo coating unit.

### Physical Properties

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- Solids > 99%
- Specific Gravity 1.08
- Viscosity 18 – 22 sec. #3 Zahn

### End Use Considerations

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KS-427 should be evaluated under production conditions using the actual digital ink system and substrate to ensure that leveling, adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete adhesion over some digital inks and/or substrates.

### Storage and Handling Information

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Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months.

Certain precautions should be taken when handling this product. Please refer to the Material Data Safety Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

#### **FOR YOUR PROTECTION:**

The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning uses or applications are only the opinion of KUSTOM SERVICES, INC., and users should make their own tests to determine the suitability of this product for their own particular purposes. However, because of numerous factors affecting results, KUSTOM SERVICES, INC. makes no warranty of any kind, expressed or implied, including those of merchantability and fitness for particular purpose, other than that the material conforms to its applicable current Standard Specifications. Standard Specifications, although current at the time of publication, are subject to change without notice. Please refer to the MSDS for additional information. DATE REVISED: 02/07/2013

# Technical Data Sheet

## KS-427HV

High Viscosity, High Gloss  
UV Coating for Digital



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### Product Description

Digital is one of the fastest growing segments of the printing industry. However, because of the many different digital inks available, the ability to topcoat is a challenge. **KS-427HV** is specifically formulated as a high gloss UV coating for application over various toner based inks such as HP Indigo, Canon, and iGen. Coating problems with these inks can be solved most of the time with the right UV coating. **KS-427HV** has an excellent track record over these types of digital inks. Wax based toners such as Konica, and Canon are more of a challenge as they tend to repel UV coating. **KS-427HV** is still an option with the wax based toners, but adhesion and performance can be greatly improved by preheating the inks with IR lamps prior to UV coating and curing. **KS-427HV is high viscosity to give ultimate hold-out over absorbent stock. A blanket coater or slightly higher BCM anilox may be needed for best performance with KS-427HV.** **KS-427HV** is a higher viscosity version of our best selling UV coating for over digital, **KS-427**. Different digital inks may require different type UV coatings. Contact your KUSTOM Group representative for other potential UV coating options for digital ink.

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### Performance Characteristics

- Minimizes substrate and ink build highs and lows, to improve gloss consistency across the sheet.
- Excellent gloss, clarity, and cure response
- Good adhesion to digital inks (and hard to adhere to conventional inks).
- Not considered imprintable, foil-stampable, glueable, etc.
- Produces a very smooth finish when applied by a roller or flexo coating unit.

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### Physical Properties

- Viscosity 37 – 40 sec. #3 Zahn
- Solids > 99%
- Specific Gravity 1.08

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### End Use Considerations

KS-427HV should be evaluated under production conditions using the actual digital ink system and substrate to ensure that leveling, adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete adhesion over some digital inks and/or substrates.

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### Storage and Handling Information

Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months. Certain precautions should be taken when handling this product. Please refer to the Material Data Safety Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

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# Technical Data Sheet

## KS-439

Gloss UV Coating for over  
Ink Jet Ink on Ink Jet Paper

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### Product Description

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The unique chemistry of waterbased ink jet inks makes the ability to top coat a challenge for UV coatings. KS-439 is formulated for use over ink jet paper and gives excellent hold-out over blotchy, absorbent stock. **A slightly higher BCM anilox (14+ bcm) may be needed for best performance with KS-439.** For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent gloss
- Excellent cure response
- Minimizes substrate and ink build highs and lows, to improve gloss consistency across the sheet.
- Not imprintable, foil-stampable, or glueable, etc.

### Physical Properties

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- Viscosity 6 – 9 Poise (TA Rheometer)
- Specific Gravity 1.11
- Solids > 99%

### End Use Considerations

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KS-439 should be evaluated in the laboratory using the actual ink system and substrate to ensure that leveling, intercoat adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete intercoat adhesion over some ink systems. A primer may be considered for use if this property needs to be improved.

### Storage and Handling Information

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Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months.

Certain precautions should be taken when handling this product. Please refer to the Material Safety Data Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

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# Technical Data Sheet

## KS-439LV

Lower Viscosity Gloss UV Coating  
for over Ink Jet Ink on Ink Jet Paper

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### Product Description

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The unique chemistry of waterbased ink jet and toner based inks makes the ability to top coat a challenge for UV coatings. KS-439LV is formulated for use over ink jet paper and primed Konica Minolta printing (primed with KS-9845) yielding a smooth consistent look. **A slightly higher BCM anilox (14+ bcm) may be needed for best performance with KS-439LV.** For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent gloss
- Excellent cure response
- Minimizes substrate and ink build highs and lows, to improve gloss consistency across the ink jet sheet.
- Can be used in combination with KS-9845 primer over Konica Minolta to achieve a desirable outcome
- Not imprintable, foil-stampable, or glueable, etc.

### Physical Properties

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- Viscosity 2 - 4 Poise (TA Rheometer)
- Specific Gravity 1.11
- Solids > 99%

### End Use Considerations

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KS-439LV should be evaluated in the laboratory using the actual ink system and substrate to ensure that leveling, intercoat adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete intercoat adhesion over some ink systems. A primer may be considered for use if this property needs to be improved.

### Storage and Handling Information

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Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months.

Certain precautions should be taken when handling this product. Please refer to the Material Safety Data Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

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# Technical Data Sheet

## KS-450

Kustom Kure High Gloss  
UV Coating for Ink Jet Ink

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### Product Description

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Digital is one of the fastest growing segments of the printing industry. However, because of the unique chemistry of digital inks, the ability to topcoat has always been a challenge. With this in mind, Kustom Group developed **KS-450**. **KS-450** is formulated as a general purpose, high gloss UV coating for application over Ink Jet Inks on untreated paper and light weight paper board. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent gloss and clarity
- Excellent cure response
- Good adhesion to Ink Jet Inks
- Not considered imprintable, foil-stampable, glueable, etc.
- Produces a smooth finish when applied by anilox coating unit

### Physical Properties

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- Solids > 99%
- Specific Gravity 1.11
- Viscosity 13 – 15 sec. #3 Zahn

### End Use Considerations

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**KS-450** should be evaluated under production conditions using the actual ink jet ink system and substrate to ensure that leveling, adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete adhesion over some digital inks and/or substrates.

### Storage and Handling Information

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Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months.

Certain precautions should be taken when handling this product. Please refer to the Material Data Safety Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

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# Technical Data Sheet

## KS-451

### Matte UV Coating for HP Indigo



#### Product Description

The unique chemistry of HP Indigo inks makes the ability to top coat with UV coatings a challenge. KS-451 is formulated for use over HP Indigo inks as a matte UV coating to be applied in-line or off-line via anilox coaters. Typical applications include commercial sheetfed printing on paper or paperboard substrates where matte gloss is desired. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Exhibits matte appearance with non-burnishing characteristics. Typical gloss reading is 0-20 points with a 60° gloss meter. This is dependant on the substrate and application method.
- Low thixotropy
- Excellent cure response
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- Viscosity 18 – 22 sec. #3 Zahn
- Specific Gravity 1.04
- Solids > 99%

#### End Use Considerations

HP Indigo requires paper sizing under the printing. To reduce burnishing of the KS-451 over the sized paper area where there is no ink present, KS-9851 as a primer on top of the printed sheet and before the KS-451 is recommended. KS-451 should be evaluated under production conditions using the actual ink system and substrate to ensure that leveling, intercoat adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete intercoat adhesion over some substrates. A primer may be considered for use if this property needs to be improved.

#### Storage and Handling Information

Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months.

Certain precautions should be taken when handling this product. Please refer to the Material Safety Data Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

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# Technical Data Sheet

## KS-507

### Kustom Kure High Viscosity Gloss UV Coating for Ink Jet Ink on Ink Jet Paper



#### Product Description

Digital is one of the fastest growing segments of the printing industry. However, because of the unique chemistry of digital inks, the ability to topcoat has always been a challenge. With this in mind, Kustom Group developed **KS-507**. **KS-507** is formulated as a high gloss UV coating for application over Ink Jet Inks on Ink Jet Paper or other very absorbent paper substrates. Applying **KS-507** using a blanket coater, slightly higher BCM anilox, or coating units with a heated coating reservoir are ideal for taking advantage of its high viscosity properties. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent gloss and clarity
- Excellent cure response
- Excellent hold-out
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.14
- Viscosity 14 – 16 Poise

#### End Use Considerations

**KS-507** should be evaluated in the laboratory using the actual ink system and substrate to ensure that leveling, intercoat adhesion, gloss and other performance characteristics are acceptable. In general, UV coatings may not exhibit complete intercoat adhesion over some ink systems. A primer may be considered for use if this property needs to be improved.

#### Storage and Handling Information

Care should be taken not to expose radiation curable products to temperatures exceeding 100°F for prolonged periods of time or to direct sunlight. Storage must be in a cool, shaded, well-ventilated and dry area. To do otherwise might cause uncontrollable polymerization of the product with generation of heat. Do not store this material under an oxygen-free atmosphere. This material should not be stored for more than six (6) months.

Certain precautions should be taken when handling this product. Please refer to the Material Data Safety Sheet (MSDS) for further details. This product contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Since irritation may not occur immediately, contact can go unnoticed. Consult the MSDS for appropriate equipment prior to using this or any other materials referred to in this Technical Data Sheet.

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## TECHNICAL DATA SHEET

# KS-9850



## Gloss Aqueous Coating for Digital Ink

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### PRODUCT DESCRIPTION

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KS-9850 is an acrylic-based aqueous coating for application over HP Indigo (sizing dependent) or Xerox digital ink printed on paper and paperboard substrates. KS-9850 may be applied with in-line or off-line coater/dampeners.

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### PERFORMANCE CHARACTERISTICS

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- Excellent gloss.
- Good rub and scuff resistance.
- Great wetting and adhesion.
- May be evaluated over other toner and wax based digital printing
- **"MAY BE SUITABLE"** for some hot foil stamping, imprinting, UV coating and gluing applications. Before doing so, KS-9850 should be completely evaluated under production conditions using the actual substrate and ink, as materials for foil stamping, imprinting, UV coating and gluing vary from supplier-to-supplier. Feel free to contact Kustom Group for additional information.

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### PHYSICAL PROPERTIES

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Viscosity	16-18" #3 Zahn (Signature) @ 77° F
pH	8.0-8.5 @ 77° F
Solids	31-33% Method 24
Specific Gravity	1.03
Shelf Life	One year (unopened container)

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### PIGMENT SELECTION

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Most aqueous coatings are alkaline in pH because of the presence of ammonia. We recommend that the printer avoid the use of inks containing pigments that may bleed or change color when being exposed to an aqueous coating. Pigments that typically exhibit this sensitivity to alkali include YS Rhodamine, BS Rhodamine, Methyl Violet, Fluorescent, Red Lake C, Alkali Blue (Reflex Blue) and possibly other pigments. Many pigments normally considered safe, may prove to be problematic in low color strength color matches. The safest option is to use inks formulated to resist the potential to burn. As a precaution, we strongly recommend that new pigments and ink formulations be evaluated with this coating.

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DATE REVISED 02/06/2013

# TECHNICAL DATA SHEET



# KS-9851

## AQ Primer for HP Indigo and AQ Ink Jet

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### PRODUCT DESCRIPTION

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KS-9851 is an acrylic-based aqueous coating for application **over** HP Indigo digital ink (sizing dependent) printed on paper and paperboard substrates. KS-9851 can be evaluated **over** waterbased ink jet inks. KS-9851 may be applied with in-line or off-line coater/dampeners and blanket coaters.

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### PERFORMANCE CHARACTERISTICS

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- Great wetting and adhesion
- May be evaluated over other toner, wax or AQ ink jet based digital printing
- Anilox volume of 10+ BCM is recommended
- "**MAY BE SUITABLE**" for foil stamping, imprinting, UV coating and gluing applications. Before doing so, KS-9851 should be completely evaluated under production conditions using the actual substrate and ink, as materials for foil stamping, imprinting, UV coating and gluing vary from supplier-to-supplier. Feel free to contact Kustom Group for additional information.

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### PHYSICAL PROPERTIES

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Viscosity	25 - 27" #3 Zahn (Signature) @ 77° F
pH	8.5 - 9.0 @ 77° F
Solids	39 - 43% Method 24
Specific Gravity	1.04
Shelf Life	One year (unopened container)

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### PIGMENT SELECTION

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Most aqueous coatings are alkaline in pH because of the presence of ammonia. We recommend that the printer avoid the use of inks containing pigments that may bleed or change color when being exposed to an aqueous coating. Pigments that typically exhibit this sensitivity to alkali include YS Rhodamine, BS Rhodamine, Methyl Violet, Fluorescent, Red Lake C, Alkali Blue (Reflex Blue) and possibly other pigments. Many pigments normally considered safe, may prove to be problematic in low color strength color matches. The safest option is to use inks formulated to resist the potential to burn. As a precaution, we strongly recommend that new pigments and ink formulations be evaluated with this coating.

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DATE REVISED 02/06/2013

# TECHNICAL DATA SHEET

# KS-9852



## Gloss Aqueous Coating for Digital Ink

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### PRODUCT DESCRIPTION

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KS-9852 is an acrylic-based aqueous coating for application over HP Indigo (sizing dependent) digital ink printed on paper and paperboard substrates. KS-9852 may be applied with in-line or off-line coater/dampeners.

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### PERFORMANCE CHARACTERISTICS

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- Excellent gloss.
- Good rub and scuff resistance.
- Great wetting and adhesion.
- May be evaluated over other toner and wax based digital printing
- **"MAY BE SUITABLE"** for some hot foil stamping, imprinting, UV coating and gluing applications. Before doing so, KS-9852 should be completely evaluated under production conditions using the actual substrate and ink, as materials for foil stamping, imprinting, UV coating and gluing vary from supplier-to-supplier. Feel free to contact Kustom Group for additional information.

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### PHYSICAL PROPERTIES

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Viscosity	19-21" #3 Zahn (Signature) @ 77° F
pH	8.0-8.5 @ 77° F
Solids	37-39% Method 24
Specific Gravity	1.05
Shelf Life	One year (unopened container)

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### PIGMENT SELECTION

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Most aqueous coatings are alkaline in pH because of the presence of ammonia. We recommend that the printer avoid the use of inks containing pigments that may bleed or change color when being exposed to an aqueous coating. Pigments that typically exhibit this sensitivity to alkali include YS Rhodamine, BS Rhodamine, Methyl Violet, Fluorescent, Red Lake C, Alkali Blue (Reflex Blue) and possibly other pigments. Many pigments normally considered safe, may prove to be problematic in low color strength color matches. The safest option is to use inks formulated to resist the potential to burn. As a precaution, we strongly recommend that new pigments and ink formulations be evaluated with this coating.

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### FOR YOUR PROTECTION:

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DATE REVISED 02/06/2013

# TECHNICAL DATA SHEET

# KS-9853



## Satin Aqueous Coating for Digital Ink

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### PRODUCT DESCRIPTION

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KS-9853 is an acrylic-based aqueous coating for application over HP Indigo (sizing dependent) digital ink printed on paper and paperboard substrates. KS-9853 may be applied with in-line or off-line coater/dampeners.

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### PERFORMANCE CHARACTERISTICS

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- Excellent satin appearance and non-burnishing characteristics. A typical gloss reading is 25-35% with a 60° gloss meter dependent on ink, substrate and application method.
- Good rub and scuff resistance.
- Great wetting and adhesion.
- May be evaluated over other toner and wax based digital printing.
- "**MAY BE SUITABLE**" for some hot foil stamping, imprinting, UV coating and gluing applications. Before doing so, KS-9853 should be completely evaluated under production conditions using the actual substrate and ink, as materials for foil stamping, imprinting, UV coating and gluing vary from supplier-to-supplier. Feel free to contact Kustom Group for additional information.

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### PHYSICAL PROPERTIES

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Viscosity	16-18" #3 Zahn (Signature) @ 77° F
pH	8.0-8.5 @ 77° F
Solids	36-39% Method 24
Specific Gravity	1.04
Shelf Life	One year (unopened container)

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### PIGMENT SELECTION

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Most aqueous coatings are alkaline in pH because of the presence of ammonia. We recommend that the printer avoid the use of inks containing pigments that may bleed or change color when being exposed to an aqueous coating. Pigments that typically exhibit this sensitivity to alkali include YS Rhodamine, BS Rhodamine, Methyl Violet, Fluorescent, Red Lake C, Alkali Blue (Reflex Blue) and possibly other pigments. Many pigments normally considered safe, may prove to be problematic in low color strength color matches. The safest option is to use inks formulated to resist the potential to burn. As a precaution, we strongly recommend that new pigments and ink formulations be evaluated with this coating.

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### FOR YOUR PROTECTION:

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DATE REVISED 02/06/2013



# TECHNICAL DATA SHEET



## KS-9855

### Matte Aqueous Coating for iGen

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#### PRODUCT DESCRIPTION

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KS-9855 is a matte acrylic-based aqueous coating specifically formulated for application over Xerox iGen printed material. Typical application is with in-line or off-line anilox coater.

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#### PERFORMANCE CHARACTERISTICS

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- Matte appearance, 0-15, 60 degree gloss meter Leneta form 3NT-31
- Good rub and scuff resistance.
- May be used for some hot foil stamping, imprinting, UV coating and gluing applications. Before doing so, KS-9855 should be completely evaluated under production conditions using the actual substrate and ink, as materials for foil stamping, imprinting, UV coating and gluing vary from supplier-to-supplier. Feel free to contact Kustom Group for additional information.

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#### PHYSICAL PROPERTIES

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Viscosity	30-34" #3 Zahn (Signature) @ 77° F
pH	8.0-8.5 @ 77° F
Solids	41-43 Method 24
Specific Gravity	1.06
Shelf Life	One year (unopened container)

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#### PIGMENT SELECTION

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Most aqueous coatings are alkaline in pH because of the presence of ammonia. We recommend that the printer avoid the use of inks containing pigments that may bleed or change color when being exposed to an aqueous coating. Pigments that typically exhibit this sensitivity to alkali include YS Rhodamine, BS Rhodamine, Methyl Violet, Fluorescent, Red Lake C, Alkali Blue (Reflex Blue) and possibly other pigments. Many pigments normally considered safe, may prove to be problematic in low color strength color matches. The safest option is to use inks formulated to resist the potential to burn. As a precaution, we strongly recommend that new pigments and ink formulations be evaluated with this coating.

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#### FOR YOUR PROTECTION:

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DATE REVISED 02/06/2013

# TECHNICAL DATA SHEET



## KS-9856

### Matte Aqueous Coating for Digital Ink

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#### PRODUCT DESCRIPTION

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KS-9856 is a matte acrylic-based aqueous coating specifically formulated for application over Ricoh printed material and HP Indigo (sizing dependent) digital ink on paper and paperboard with in-line or off-line anilox coaters.

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#### PERFORMANCE CHARACTERISTICS

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- Exhibits matte appearance with non-burnishing characteristics. Typical gloss reading is 0-20 points with a 60° gloss meter dependant on substrate and application method.
- Exhibits good rub and scuff resistance.
- "**MAY BE SUITABLE**" for some hot foil stamping, imprinting and gluing applications. Before doing so, KS-9856 should be completely evaluated under production conditions using the actual substrate and ink, as materials for foil stamping, imprinting and gluing vary from supplier-to-supplier. Feel free to contact Kustom Group for additional information.
- Suitable for use as a single-sided and work and turn coating.

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#### PHYSICAL PROPERTIES

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<b>Viscosity</b>	20-22" #3 Zahn (Signature) @ 77° F
<b>pH</b>	8.0-8.5 @ 77° F
<b>Solids</b>	35-38% Method 24
<b>Shelf Life</b>	One year (unopened container)

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#### PIGMENT SELECTION

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Most aqueous coatings are alkaline in pH because of the presence of ammonia. We recommend that the printer avoid the use of inks containing pigments that may bleed or change color when being exposed to an aqueous coating. Pigments that typically exhibit this sensitivity to alkali include YS Rhodamine, BS Rhodamine, Methyl Violet, Fluorescent, Red Lake C, Alkali Blue (Reflex Blue) and possibly other pigments. Many pigments normally considered safe, may prove to be problematic in low color strength color matches. The safest option is to use inks formulated to resist the potential to burn. As a precaution, we strongly recommend that new pigments and ink formulations be evaluated with this coating.

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#### FOR YOUR PROTECTION:

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DATE REVISED 02/06/2013

# Technical Data Sheet



## KB-3164

### S.F Gloss OPV for Digital Ink

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#### Product Description

**KB-3164** is a new development in our popular series of Lithomaster overprint varnishes. **KB-3164** is formulated to achieve the proper lay and adhesion specifically needed to be successfully applied over digital printing\*.

#### Performance Characteristics

- Good Lay and Adhesion over most Digital inks\*.
- High Gloss
- Good Litho Properties
- Non Imprintable

#### Physical Properties

Tack:	9.0 – 10.0 @ 90°F / 1200 rpm / 1minute
Inkometer Stability:	0.3 – 0.8 typical tack rise per minute for 5 minutes
Oxidative Dry:	2.0-3.0 hrs. / 0.5 mils on glass with film applicator
% Solids:	93-95

#### \* Special Instructions

This is a high degree of difficulty application and there are many different types of digital inks being used today. For this reason, it is essential to test over the specific digital ink being used prior to any production run.

#### FOR YOUR PROTECTION:

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# Technical Data Sheet



## KB-3179

### S.F Satin OPV for Digital Ink

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#### Product Description

**KB-3179** is a new development in our popular series of Lithomaster overprint varnishes. **KB-3179** is formulated to achieve the proper lay and adhesion specifically needed to be successfully applied over digital printing\*.

#### Performance Characteristics

- Good Lay and Adhesion over most Digital inks\*.
- Satin Finish
- Good Litho Properties
- Non Imprintable

#### Physical Properties

Tack:	6.0 – 8.0 @ 90°F / 1200 rpm / 1 minute
Inkometer Stability:	0.6 – 1.1 typical tack rise per minute for 5 minutes
Oxidative Dry:	<3.5 hrs. / 0.5 mils on glass with film applicator
% Solids:	74-76

#### \* Special Instructions

This is a high degree of difficulty application and there are many different types of digital inks being used today. For this reason, it is essential to test over the specific digital ink being used prior to any production run.

#### FOR YOUR PROTECTION:

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# Technical Data Sheet



## KB-3187

### S.F Matte OPV for Digital Ink

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#### **Product Description**

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**KB-3187** is a new development in our popular series of Lithomaster overprint varnishes. **KB-3187** is formulated to achieve the proper lay and adhesion specifically needed to be successfully applied over digital printing\*.

#### **Performance Characteristics**

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- Good Lay and Adhesion over most Digital inks\*.
- Matte Finish
- Good Litho Properties
- Non Imprintable

#### **Physical Properties**

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Tack:	4.0 – 6.0 @ 90°F / 1200 rpm / 1 minute
Inkometer Stability:	0.7 – 1.2 typical tack rise per minute for 5 minutes
Oxidative Dry:	2.0-3.0 hrs. / 0.5 mils on glass with film applicator
% Solids:	74-76

#### **\* Special Instructions**

This is a high degree of difficulty application and there are many different types of digital inks being used today. For this reason, it is essential to test over the specific digital ink being used prior to any production run.

#### **FOR YOUR PROTECTION:**

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# TECHNICAL DATA SHEET



# KS-9845

## AQ Digital Sizing/Primer

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### PRODUCT DESCRIPTION

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KS-9845 is an aqueous sizing similar to Sapphire and DigiPrime specifically formulated for application to substrates so that they can accept HP Indigo inks. Typical application is with an anilox coater. KS-9845 may be evaluated as a primer over toner based or ink jet inks.

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### PERFORMANCE CHARACTERISTICS

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- Improves adhesion of HP Indigo inks to the resulting substrate
- Adhesion to multiple substrates
- Low viscosity allows for easy application with most standard anilox systems. (Not recommended for roll or tower coaters as well higher volume anilox)

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### PHYSICAL PROPERTIES

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Viscosity	10 - 12" #3 Zahn (Signature) @ 77° F
pH	10.0 - 11.0 @ 77° F
VOC's	0-2% Method 24
Specific Gravity	1.01
Shelf Life	One year (unopened container)

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### END USE CONSIDERATIONS

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Due to the variabilities present, KS-9845 should be evaluated under production conditions for proper HP Indigo ink adhesion.

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### FOR YOUR PROTECTION:

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DATE REVISED 03/01/2013

# TECHNICAL DATA SHEET

## KS-190

### Kentucky Shine High Body, Press Stable Gloss Overprint



#### **Product Description:**

KS-190 represents the next generation of Kentucky Shine. It is formulated as an aqueous overprint varnish for application to paper and paperboard through the inking unit of a sheetfed offset press. Typical applications would be commercial printing. Please refer to the **Kentucky Shine Press Instruction** booklet for press preparation and use. For any additional information please contact your KUSTOM GROUP, LLC representative.

#### **Performance Characteristics:**

- Enhanced press stability when compared to other products
- Excellent clarity and gloss
- Excellent set and dry speed
- Has improved rheology to prevent dripping thru ink fountain
- Good rub and scuff resistance (test versus specifications prior to use)
- Not recommended for use as a UV coating primer
- Not recommended for hot foil stamping, gluing or imprinting and film laminating

#### **Physical Properties:**

- **Tack:** 10 – 12 @ 400 RPM, 1 minute
- **Dynamic Viscosity:** 30 – 60 Poise (Rheometer @25C; 4cm, 2deg cone; 2.5 1/sec)
- **pH:** 7.5 – 8.0 @ 77°
- **Specific Gravity:** 1.07

#### **Application Information:**

- 1 **Drying Requirements:** For best results, aqueous overprints varnishes require a sufficient volume of warm air directed onto the varnished surface. The use of IR units (short of medium wavelength) can provide drying assistance in many applications. Exercise care to avoid load temperatures in excess of 90° F.
- 2 **Application Weight:** Apply about 20 to 25% more than oil base overprints.
- 3 **Ink Formulary:** Limit wax to typical polyethylene to ensure proper inter-coat adhesion. The use of PTFE, microcrystalline wax or silicone may contribute to application problems. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product (refer to the **Kentucky Shine Press Instruction booklet**). As a precaution, always evaluate new ink formulation and technologies with the aqueous overprint varnish.

#### **FOR YOUR PROTECTION:**

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