

# MOST POPULAR FLEXO PRODUCTS



## **UV Flexo Coatings – Imprintable for Paper**

- |        |   |
|--------|---|
| KS-460 | High Gloss Foil-Stampable UV Coating<br>Excellent foil-stampability/imprintability/glueability                                |
| KS-564 | Imprintable Matte UV Coating<br>Smooth matte finish with low thixotropy and good imprintability/foil-stampability/glueability |

## **UV Flexo Coatings – for Plastic**

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|--------|--|
| KS-661 | Special Blend Gloss UV Coating for Plastic<br>Flexibility and adhesion to a wide variety of plastics |
| KS-570 | Matte UV Coating for Plastic<br>Excellent printing & flow properties                                 |
| KS-494 | High Gloss Imprintable/Gluable UV Coating<br>Flexible and foil stampable                             |

## **UV Flexo Coatings – for Aqueous Flexo Inks**

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|----------|--|
| KS-660   | High Gloss UV Coating for Water Inks<br>Specifically for use over water-based inks     |
| KS-498   | Matte UV Coating for Over Aqueous Flexo Ink<br>Smooth matte finish with low thixotropy |
| KS-552LV | Low Slip High Rub Gloss UV Coating<br>Excellent rub resistance with high slide angle   |

## **UV Flexo Coatings – BZP Free**

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|--------|---|
| KS-448 | Low Odor BZP Free Gloss UV Coating<br>BZP free                          |
| KS-467 | BZP Free Satin UV Coating<br>Satin BZP & Amine Free                     |
| KS-412 | Low Odor BZP Free Matte UV Coating<br>Smooth matte finish with low odor |

## **UV Flexo Coatings – Specialty**

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|----------|---|
| KCF-1400 | UV Curable Cold Foil Adhesive<br>For the flexo application of cold foil lamination film on paper, paperboard and various plastics |
| KS-430   | Flexible UV-Curable Adhesive Deadener<br>Particularly good for aggressive adhesives   |

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|--------|--|
| KS-492 | High Gloss UV Release Coating<br>Low slide angle with good release properties                          |
| KS-415 | Matte UV Release Coating<br>Smooth matte finish with good release properties (matte version of KS-492) |

### **Aqueous Flexo Coatings**

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|---------|---|
| KF-8003 | Aqueous Flexo Gloss Coating<br>High Rub and Low COF - contains silicone               |
| KF-8012 | Low Slide Aqueous Flexo Coating<br>Slide Angles of 15-25                              |
| KF-8072 | General Purpose Gloss AQ Flexo Coating<br>60 Degree Gloss = 55 – 65                   |
| KF-8073 | General Purpose Satin AQ Flexo Coating<br>60 Degree Gloss = 25-30                     |
| KF-8074 | General Purpose Matte AQ Flexo Coating<br>60 Degree Gloss = 10-15                     |
| KF-8077 | Aqueous High Slide Corrugated Postprint Coating<br>For POP displays - Contains No Wax |
| KF-8082 | Chemical Resistant Gloss AQ Coating<br>Water, grease, brake fluid and other chemicals |

### **Small Volume Anilox Special Effect Flexo Coating**

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|---------|---|
| KS-469  | Sandy Matte UV Coating for Plastic<br>Sandy Feel with good adhesion to various plastics           |
| KS-605  | Textured UV Gloss Coating<br>Self reticulating coating providing a non-smooth/textured appearance |
| KF-8014 | Aqueous Flexo Pearl Coating<br>Silver Pearl   |

### **Large Volume Anilox Special Effect Flexo Coating**

- |          |  |
|----------|--|
| KS-433LV | Coarse Sandy Feel Matte UV Coating<br>Sandy or pebble feel                                     |
| KS-508   | Raised High Gloss UV Coating<br>Increases dimension of select graphics giving a 3-D appearance |
| KS-9812  | Aqueous Matte Soft-Feel Coating<br>Great Soft-Feel and Matte Properties                        |

### **UV Flexo Vehicles and Photoinitiator**

KS-210	Photoinitiator for Whites For white and light colored ink systems
KS-308	High Potency Photoinitiator Blend of selected P.I. with broad cure response.
KS-322	High Pigment Load Dispersant Vehicle High pigment loading capability
KS-326	Extending Vehicle for Paper/Paperboard For use with UV pigment dispersions
KS-359	Acrylated Polyester Grinding Vehicle Additive to enhance flexibility/wetting
KS-373	Balanced Photoinitiator Compound For organic & selected black pigments
KS-377	BZP Free Photoinitiator For low odor applications
KS-380	Extending Vehicle for Paper/Paperboard High performance and fast cure
LED-252	LED Liquid Photoinitiator Contains amine synergist

### **AQ Flexo Vehicles**

KF-5006	Colloidal Dispersion Vehicle High viscosity allowing higher shear for optimal dispersion
KF-5007	Napkin AQ Flexo Ink Vehicle Superior rewet for print consistency
KF-5012	Corrugated AQ Flexo Ink Vehicle Provides superior holdout and print sharpness
KF-5017	Envelope Extender Low curl and rub protection

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

Revised: 01/18/2016

# Technical Data Sheet

## KS-460

### High Gloss Foil-Stampable UV Coating



#### Product Description

KS-460 is formulated as a high gloss foil-stampable UV coating for in-line application over UV or hybrid UV inks or off-line application over dried oil-based inks. KS-460 is also recommended for full UV reticulation strike thru. (See Full UV Strike Thru System Technical Bulletin for more information) Typical applications include paper and paperboard substrates when one coating is desired for broad use in the pressroom. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent gloss and clarity
- Excellent cure response
- Excellent foil-stampability/imprintability/glueability
- May be suitable for laser imprintability.
- Produces a very smooth finish when applied by a roller or flexo coating unit
- Recommended coating for gloss and matte/gloss full UV Reticulation Strike Thru

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.07
- Viscosity 18 – 22 sec. #3 Zahn

#### End Use Considerations

KS-460 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 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:

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DATE REVISED: 01/28/2015

# Technical Data Sheet

## KS-564

### Imprintable Matte UV Coating



#### Product Description

KS-564 is recommended for use as an imprintable matte UV coating to be applied in-line over UV or hybrid UV ink systems. Typical applications include commercial sheetfed printing on paper or paperboard substrates where a smooth dull finish is desired. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Smooth matte finish
- Low thixotropy
- Excellent cure response
- Excellent imprintability, foil-stampability, glueability, etc.

#### Physical Properties

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

#### End Use Considerations

KS-564 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.

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DATE REVISED: 01/29/2015

# Technical Data Sheet

## KS-661

Special Blend Gloss  
UV Coating for Plastic



### Product Description

KS-661 is formulated as a high gloss UV coating for application over UV, heatset or sheet-fed inks on a variety of plastic stocks. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

- Excellent gloss
- Excellent cure response
- Excellent adhesion to a variety of plastics
- Not considered imprintable, foil-stampable, glueable, etc.

### Physical Properties

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

### End Use Considerations

KS-661 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.

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DATE REVISED: 01/30/2015



# Technical Data Sheet

## KS-570

### Matte UV Coating for Plastic



#### Product Description

KS-570 is recommended for use as a UV coating where high performance, low gloss and fast cure response are desired. Typical applications include selected plastic stocks. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- Not considered imprintable, foil-stampable, glueable, etc.
- Excellent adhesion to selected plastics

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.09
- Viscosity 14 – 17 sec. #3 Zahn

#### End Use Considerations

KS-570 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 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.

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DATE REVISED: 01/29/2015

# Technical Data Sheet

## KS-494

Imprintable/Glueable  
High Gloss UV Coating



### Product Description

KS-494 is recommended for use where UV coating needs to be foil-stamped, glued or imprinted. Typical applications include paper, paperboard and select plastic stocks. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

- Excellent gloss and clarity
- Excellent imprintability
- Excellent cure response
- Good adhesion to select plastic stocks
- Foil-stampable

### Physical Properties

- Viscosity 10 - 12 sec. #3 Zahn
- Specific Gravity 1.05
- Solids > 99%

### End Use Considerations

KS-494 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 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.

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DATE REVISED: 01/28/2015



# Technical Data Sheet

## KS-660

High Gloss, Low Slide

UV Coating for Aqueous Inks

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### Product Description

KS-660 is recommended as a high gloss UV coating specially formulated to be applied over water-based flexographic inks. Typical applications include paper, paperboard, and foil-coated paperboard substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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

### Physical Properties

- Viscosity 14 – 16 sec. #3 Zahn
- Specific Gravity 1.10
- Solids > 99%

### End Use Considerations

KS-660 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.

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DATE REVISED: 01/30/2015

# Technical Data Sheet

## KS-498

### Matte UV Coating for Over Aqueous Flexo Ink



#### Product Description

KS-498 is recommended for use as a matte UV coating to be applied in-line over AQ flexo, UV litho and UV flexo ink systems. Typical applications include commercial flexo and sheetfed printing on paper or paperboard substrates where a low gloss level is desired. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Matte appearance
- Low thixotropy
- Excellent cure response
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- |                    |                      |
|--------------------|----------------------|
| • Viscosity        | 18 – 22 sec. #3 Zahn |
| • Specific Gravity | 1.13                 |
| • Solids           | > 99%                |

#### End Use Considerations

KS-498 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.

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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KS-552LV

### Low Slip High Rub Gloss UV Coating



#### Product Description

KS-552LV is recommended as a low slip, high gloss UV coating specially formulated to be applied over aqueous flexographic inks where a high slide angle and good rub resistance is desired. Typical applications include paper, paperboard and corrugated board substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent gloss and clarity
- Excellent cure response
- High slide angle
- Excellent rub resistance for a low slip coating
- Considered imprintable, foil-stampable, glueable, etc. (recommend testing first)

#### Physical Properties

- |                    |                      |
|--------------------|----------------------|
| • Viscosity        | 16 - 18 sec. #3 Zahn |
| • Specific Gravity | 1.11                 |
| • Solids           | > 99%                |

#### End Use Considerations

KS-552LV 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.

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DATE REVISED: 01/29/2015

# Technical Data Sheet

## KS-448

### Low Odor BZP Free Gloss UV Coating



#### Product Description

KS-448 is formulated with purified monomers and Benzophenone (BZP) free for a truly low odor UV coating. KS-448 is recommended for use as a UV coating to be applied in-line over UV or hybrid UV ink systems where a lower odor UV coating is required. Typical applications include commercial sheetfed printing on paper and paperboard substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent gloss and clarity
- Excellent cure response
- Low odor
- Low yellowing
- Good slip
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- |                    |                      |
|--------------------|----------------------|
| • Viscosity        | 18 - 22 sec. #3 Zahn |
| • Specific Gravity | 1.12                 |
| • Solids           | > 99%                |

#### End Use Considerations

KS-448 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.

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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KS-467

### Low Odor BZP Free Satin UV Coating



#### Product Description

KS-467 is formulated as a satin UV coating for application over hybrid or UV inks on paper, paperboard and select plastic stocks. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Smooth satin finish
- BZP(Benzophenone) Free
- Excellent cure response
- Excellent adhesion to select plastics
- Low yellowing
- Low odor
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- |                    |                      |
|--------------------|----------------------|
| • Viscosity        | 18 – 22 sec. #3 Zahn |
| • Specific Gravity | 1.13                 |
| • Solids           | > 99%                |

#### End Use Considerations

KS-467 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.

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DATE REVISED: 01/17/2016



# Technical Data Sheet

## KS-412

### Low Odor BZP Free Matte UV Coating



#### Product Description

KS-412 is formulated with purified monomers and BZP free for a true low odor UV coating. KS-412 is recommended for use as a UV coating to be applied in-line over UV or hybrid UV ink systems where a lower odor UV coating is required. Typical applications include commercial sheetfed printing on paper and paperboard substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Matte Finish
- Excellent cure response
- Low odor; Benzophenone (BZP) free
- Low Yellowing
- Good slip
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

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

#### End Use Considerations

KS-412 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.

#### FOR YOUR PROTECTION:

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DATE REVISED: 01/23/2015



# Technical Data Sheet

## KCF-1400

### UV Curable Cold Foil Adhesive



#### Product Description

KCF-1400 is a UV curable adhesive for the flexo application of cold foil lamination film. Typical substrates include paper, paperboard and various plastics. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Provides a sharp image for fine print
- Strong bond for large print areas
- Highly functional for fast cure response
- Excellent press stability
- Single component formulation

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.15
- Viscosity 26-28 sec. #4 Zahn

#### End Use Considerations

KCF-1400 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.

#### 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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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KS-430

### UV-Curable Adhesive Deadener



#### Product Description

KS-430 is recommended for use as a deadener for common and aggressive pressure-sensitive adhesives on self-adhesive label stock. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Bonds well to most adhesives (evaluate first)

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.12
- Viscosity 21 - 24 sec. #3 Zahn

#### End Use Considerations

KS-430 should be evaluated using the actual substrate to ensure that performance characteristics are acceptable. A 30-day study is encouraged to confirm KS-430 performs on the specific self-adhesive label stock.

#### 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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DATE REVISED: 01/23/2015

# Technical Data Sheet

## KS-492

### High Gloss UV Release Coating



#### Product Description

KS-492 is recommended for use as a high gloss UV release coating where high performance, high gloss, tape release and fast cure response are desired on paper and paperboard substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- Good release properties
- Extremely low slide angle
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.10
- Viscosity 18 – 22 sec. #3 Zahn

#### End Use Considerations

KS-492 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 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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DATE REVISED: 01/28/2015

# Technical Data Sheet

## KS-415

### Matte UV Release Coating



#### Product Description

KS-415 is recommended for use as a matte UV release coating where high performance, low gloss, tape release and fast cure response are desired on paper and paperboard substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- Good release properties
- Extremely low slide angle
- Smooth matte finish
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.12
- Viscosity 18 – 22 sec. #3 Zahn

#### End Use Considerations

KS-415 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 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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DATE REVISED: 01/23/2015

# Technical Data Sheet

## KF-8003

### Aqueous Flexo Gloss Coating



#### Product Description

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KF-8003 is formulated as an aqueous flexo coating for use on SBS, Clay Coated Newsback and other paperboard or paper substrates. Typical applications would be for folding cartons, labels and other work that requires good gloss and rub resistance. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

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- Excellent gloss and clarity.
- Excellent rub and scuff resistance (Sutherland 50X4# face-to-face).
- Good press performance and drying speed.

#### Physical Properties

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- **Viscosity:** 18 - 22 sec. #3 Zahn @ 77° F
- **pH:** 8.8 – 9.3 @ 77° F
- **Specific Gravity:** 1.06
- **Solids:** 40-42%
- **Appearance:** Milky White Liquid
- **Slide Angle:** 12-15° Static

#### Application Information

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- Application Viscosity: Stir before using. Use at room temperature (65-80°F).
- Viscosity Adjustment: Water or 80 water/20 alcohol blend to printing viscosity.
- Drying Requirements: For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- Application Weight: 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- Ink Formulary: Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

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DATE REVISED: 01/13/2016

# Technical Data Sheet

## KF-8012

### Low Slide Aqueous Flexo Coating

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#### Product Description

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KF-8012 is formulated as an aqueous flexo coating for use on bleached bag stock and other paper or paperboard substrates. Typical applications would be for folding cartons, labels and other work that requires good gloss and rub resistance. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

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- Excellent gloss and clarity.
- Slide angles of 15 - 25
- Excellent rub and scuff resistance (Sutherland 50X4# face-to-face).
- Good press performance and drying speed.

#### Physical Properties

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- **Viscosity:** 16 - 18 sec. #3 Zahn @ 77° F
- **pH:** 8.5 - 9.0 @ 77° F
- **Specific Gravity:** 1.06
- **Solids:** 37 - 39%
- **Appearance:** Milky White Liquid

#### Application Information

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- Application Viscosity: Stir before using. Use at room temperature (65-80°F).
- Viscosity Adjustment: Water or 80 water/20 alcohol blend to printing viscosity.
- Drying Requirements: For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- Application Weight: 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- Ink Formulary: Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

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DATE REVISED: 01/17/2016



# Technical Data Sheet

## KF-8072

Aqueous General Purpose  
Gloss Flexo OPV



### Product Description

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KF-8072 is an aqueous flexo coating for use on SBS, Clay Coated Newsback and other paperboard or paper substrates. Typical applications would be folding cartons, labels and other work that requires good gloss and rub resistance. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent gloss and clarity.
- Excellent rub and scuff resistance (Sutherland 50X4# face-to-face).
- Good press performance and drying speed.

### Physical Properties

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- **Viscosity:** 16 - 18" #3 Zahn @ 77° F
- **pH:** 8.0 - 8.5 @ 77° F
- **Specific Gravity:** 1.05
- **Solids:** 37 - 39%
- **Appearance:** Milky White Liquid

### Application Information

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- **Application Viscosity:** Stir before using. Use at room temperature (65-80°F).
- **Viscosity Adjustment:** Water or 80/20 water/alcohol blend to printing viscosity.
- **Drying Requirements:** For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- **Application Weight:** 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- **Ink Formulary:** Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KF-8073

Aqueous General Purpose  
Satin Flexo OPV



### Product Description

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KF-8073 is an aqueous flexo coating for use on SBS, Clay Coated Newsback and other paperboard or paper substrates. Typical applications would be folding cartons, labels and other work that requires satin gloss and good rub resistance. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent non-burnishing characteristics.
- Excellent rub and scuff resistance (Sutherland 50X4# face-to-face).
- Good press performance and drying speed.

### Physical Properties

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- **Viscosity:** 16 – 18" #3 Zahn @ 77° F
- **pH:** 8.0 - 8.5 @ 77° F
- **Specific Gravity:** 1.04
- **Solids:** 36 - 39%
- **Appearance:** Milky White Liquid

### Application Information

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- **Application Viscosity:** Stir before using. Use at room temperature (65-80°F).
- **Viscosity Adjustment:** Water or 80/20 water/alcohol blend to printing viscosity.
- **Drying Requirements:** For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- **Application Weight:** 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- **Ink Formulary:** Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

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

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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KF-8074

Aqueous General Purpose  
Matte Flexo OPV



### Product Description

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KF-8074 is an aqueous flexo coating for use on SBS, Clay Coated Newsback and other paperboard or paper substrates. Typical applications would be folding cartons, labels and other work that requires satin gloss and good rub resistance. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent non-burnishing characteristics.
- Excellent rub and scuff resistance (Sutherland 50X4# face-to-face).
- Good press performance and drying speed.

### Physical Properties

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- **Viscosity:** 20 - 23 sec. #3 Zahn @ 77° F
- **pH:** 8.0 - 8.5 @ 77° F
- **Specific Gravity:** 1.06
- **Solids:** 36 - 39%
- **Appearance:** Milky White Liquid

### Application Information

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- **Application Viscosity:** Stir before using. Use at room temperature (65-80°F).
- **Viscosity Adjustment:** Water or 80/20 water/alcohol blend to printing viscosity.
- **Drying Requirements:** For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- **Application Weight:** 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- **Ink Formulary:** Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

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DATE REVISED: 01/17/2016

# TECHNICAL DATA SHEET

## KF-8077



### Flexo Non Skid Postprint AQ Coating

#### PRODUCT DESCRIPTION

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KF-8077 is formulated as an aqueous flexo overprint for use on SBS, Clay Coated Newsback and other paperboard or paper substrates. Typical applications include corrugated displays where gloss and high slide angle is important. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

#### PERFORMANCE CHARACTERISTICS

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- Exhibits good gloss and clarity.
- Exhibits high slide angle (WAX-FREE).
- Exhibits satisfactory rub and scuff resistance (Sutherland 50X4# face-to-face).
- Good press performance and drying speed.

#### PHYSICAL PROPERTIES

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- **Viscosity:** 19 - 25" #2 Zahn (Signature) @ 77° F
- **pH:** 8.0 - 8.5 @ 77° F
- **Solids:** 40 - 45% Method 24
- **Shelf Life:** One year (unopened container)
- **Static Slide Angle:** 30 - 35

#### Application Information

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- Application Viscosity: Stir before using. Use at room temperature (65-80°F).
- Viscosity Adjustment: Water or 80 water/20 alcohol blend to printing viscosity.
- Drying Requirements: For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- Application Weight: 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- Ink Formulary: Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

#### FOR YOUR PROTECTION:

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DATE REVISED 01/11/2016

## TECHNICAL DATA SHEET

# KF-8082



## Chemical Resistant Gloss AQ Coating

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### PRODUCT DESCRIPTION

KF-8082 is an acrylic-based aqueous coating for application to paper and select non-porous substrates. KF-8082 is extremely versatile for resistance properties to water, various chemicals and heat when fully cured. Typical applications include labels and folding cartons over aqueous flexo inks.

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### PERFORMANCE CHARACTERISTICS

- Requires 48 hours to fully cure and maximize resistance properties.
- Exhibits excellent gloss and clarity.
- Exhibits excellent rub and scuff resistance.
- **"NOT SUITABLE"** for some hot foil stamping, imprinting and gluing applications. Before doing so, KF-8082 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.

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### PHYSICAL PROPERTIES

- **Viscosity:** 18 - 22" #3 Zahn (Signature) @ 77° F
- **pH:** 8.0 - 8.5 @ 77° F
- **Solids:** 40 - 46% Method 24
- **Shelf Life:** One year (unopened container)

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### PIGMENT SELECTION

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 01/17/2016

# Technical Data Sheet

## KS-469

### Sandy Matte UV Coating for Plastic



#### Product Description

KS-469 is recommended for use as a UV coating where high performance, low gloss sandy feel and fast cure response are desired. Typical applications include selected plastic stocks. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent sandy feel
- Excellent cure response
- Not considered imprintable, foil-stampable, glueable, etc.
- Excellent adhesion to selected plastics

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.09
- Viscosity 20 - 25 sec. #4 Zahn

#### End Use Considerations

KS-469 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 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 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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DATE REVISED: 01/28/2015



# Technical Data Sheet

## KS-605

### Textured UV Gloss Coating



#### Product Description

KS-605 is formulated as a high viscosity UV coating that exhibits an unsmooth film for a texture-like feel. KS-605 is for application over UV sheet-fed inks on paper or paperboard substrates. The effect may be improved with a higher volume anilox. KS-605 can also be applied through a silk screen. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Textured Coating with Reticulation appearance
- Excellent Cure Response
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.13
- Viscosity 20 – 30 Poise (TA Rheometer)

#### End Use Considerations

KS-605 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 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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DATE REVISED: 01/30/2015

## TECHNICAL DATA SHEET

# KF-8014

## Flexo Pearl AQ Coating



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### PRODUCT DESCRIPTION

KF-8014 is formulated as an aqueous flexo coating containing a silver pearl pigment for use on SBS, Clay Coated Newsback and other paperboard or paper substrates. Typical applications would be for folding cartons, labels and other work that requires good gloss and rub resistance. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

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### PERFORMANCE CHARACTERISTICS

- Exhibits good gloss and clarity with a pearl sheen.
- Contains less than 1% VOC's
- **MAY BE SUITABLE** for some hot foil stamping, imprinting and gluing applications. Before doing so, KF-8014 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.

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### PHYSICAL PROPERTIES

- **Viscosity:** 25 - 28" #3 Zahn (Signature) @ 77° F
- **pH:** 8.0 - 8.5 @ 77° F
- **Solids:** 45 - 55% Method 24
- **Shelf Life:** One year (unopened container)

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### Application Information

- Application Viscosity: Stir before using. Use at room temperature (65-80°F).
- Viscosity Adjustment: Water or 80 water/20 alcohol blend to printing viscosity.
- Drying Requirements: For best results, aqueous coatings require a sufficient volume of warm air directed onto the coated surface.
- Application Weight: 0.8 - 1.2 pounds per 1000 square feet at a minimum.
- Ink Formulary: Limit wax to typical polyethylene to ensure proper inter-coat adhesion. Avoid the use of pigments that may bleed or change color when in contact with an alkaline product. As a precaution, always evaluate new ink formulations/technologies with this aqueous coating.

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### FOR YOUR PROTECTION:

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DATE REVISED 01/11/2016

# Technical Data Sheet

## KS-433LV

Low Viscosity Coarse  
Sandy Feel UV Coating



### Product Description

KS-433LV is a UV coating that provides a coarse sandpaper feel upon printing over multiple types of ink on paper or paperboard and select plastic substrates; should be tested. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

- Coarse Sandy Feel
- Excellent cure response
- Multiple application methods for desired effect
- Not considered imprintable, foil-stampable, glueable, etc.
- MUST BE MIXED PRIOR TO and WHILE USING

### Physical Properties

- |                    |                  |
|--------------------|------------------|
| • Viscosity        | 30 – 35" #5 Zahn |
| • Specific Gravity | 1.11             |
| • Solids           | > 99%            |

### End Use Considerations

\*\*\* KS-433LV contains a dry material at a small micron size that could cause increased wear of printing application materials; such as doctor blades, anilox rollers, pumps, etc., or cause other performance issues typically associated with coatings containing dry/abrasive types of material. For this reason, [Kustom Group accepts no liability](#) for the use of KS-433LV and recommends extensive testing and care be used when running KS-433LV to minimize these conditions. KS-433LV 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 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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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KS-508

### Raised High Gloss UV Coating



#### Product Description

KS-508 is formulated as a high viscosity UV coating for application over UV inks on paper or paperboard substrates. For additional information regarding assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent gloss and lay
- Excellent cure response
- Can be used to impart a raised look to finished coating (The process requires a high volume anilox and an etched, raised photopolymer plate [usually proprietary].)
- Can also be considered for other application methods (such as a gluer unit, roll coater, etc.) .
- Not considered imprintable, foil-stampable, glueable, etc.

#### Physical Properties

- Solids > 99%
- Specific Gravity 1.06
- Viscosity 12 – 14 Poise (TA rheometer)

#### End Use Considerations

KS-508 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 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 this in this Technical Data Sheet.

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DATE REVISED: 01/17/2016

# TECHNICAL DATA SHEET

## KS-9812



### Smoother Lay Soft Feel AQ Coating

#### Product Description:

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KS-9812 is a soft feel aqueous coating with enhanced lay and film forming properties to improve the appearance and robustness of the applied coating. KS-9812 is typically applied to paper and paperboard with litho in-line coaters and flexo presses that are equipped with chambered doctor blade anilox systems for commercial, folding carton and specialty print work. Contact Kustom Group for additional information, as it is important to fully understand the optimum conditions for success.

#### Performance Characteristics:

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- Soft-Feel exhibits an excellent matte appearance and non-burnishing characteristics.
- A 12-14 BCM anilox roller should provide the desired film thickness for "Soft-Feel" properties.
- A chambered doctor blade anilox configuration will exhibit a smoother appearance versus a 2-roll coater. If using a roller coater, we suggest using KS-9812HV.
- KS-9812 exhibits superior rub and scuff resistance.
- **"MAY BE SUITABLE"** for hot foil stamping, off-line UV coating, imprinting and gluing applications, but should be completely evaluated under production conditions using the actual substrate, ink, and materials for foil stamping, off-line UV coating, imprinting and gluing to ensure satisfaction throughout the entire process.

#### Application Advisements:

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- Ensure ink system will dry/cure thoroughly. Avoid extreme stay open and metallic inks.
- Use short lifts for sheetfed litho jobs with heavy ink coverage.

#### Physical Properties:

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- **Viscosity:** 20 - 22" #3 Zahn (Signature) @ 77° F
- **pH:** 8.2 -8.7 @ 77° F
- **Solids:** 32-36% Method 24
- **Shelf Life:** One year (unopened container)

#### 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.

#### FOR YOUR PROTECTION:

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DATE REVISED 01/11/2016



# Technical Data Sheet

## KS-210

### Photoinitiator Blend for White Inks



#### Product Description

KS-210 is a balanced photoinitiator recommended specifically for use in TiO<sub>2</sub> pigmented systems. KS-210 can be used for most UV-curable inks including flexographic, screen, and litho. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- Non-yellowing
- For use with white pigments
- Recommended dosage is 7-10%
- Low viscosity liquid – easy to blend into ink system
- Blend of selected photoinitiators with broad cure response

#### Physical Properties

- |                    |                      |
|--------------------|----------------------|
| • Viscosity        | 13 – 15 sec. #2 Zahn |
| • Specific Gravity | 1.11                 |
| • Solids           | > 99%                |

#### Suggested Starting Ink Formulary

KS-210 may be used in combination with other photoinitiators. Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

#### 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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DATE REVISED: 01/16/2016



# Technical Data Sheet

## KS-308

### Photoinitiator Blend



#### Product Description

KS-308 is a liquid photoinitiator blend, effective for flexo, litho, screen, especially recommended for darker colors and thicker films(except white)\*. For better economics in lighter colors, use in combination with KS-203. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response especially with darker colors
- For use with all standard organic and select carbon black pigments (except white)\*
- Low viscosity liquid – easy to blend into ink system
- Blend of selected photoinitiators with broad cure response

#### Physical Properties

- Viscosity 220 – 280 Poise (TA Rheometer)
- Specific Gravity 1.10
- Solids > 99%
- Appearance Liquid (CAUTION: Upon aging, KS-308 may start to crystallize. A simple warming of KS-308, not to exceed 130°F, will reconstitute the material safely.)

#### Suggested Starting Ink Formulary

KS-308 can be used at a concentration of 1-8% by weight of the total formula. KS-308 may also be used in combination with other photoinitiators. Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

#### 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.

\*Use KS-210 for white inks

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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KS-322

### UV High Pigment Load Dispersant Vehicle



#### Product Description

KS-322 is recommended as a higher concentrated, lower viscosity version of KS-204. KS-322 is an excellent choice for dry grinding carbon black, and other hard to wet pigments. Use in UV flexographic inks, UV inkjet inks, and offset inks. KS-322 has exhibited excellent pigment wetting capabilities, good adhesion properties, and overall lower viscosities of the finished ink. Applications include paper or non-porous substrates. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- High pigment loading capability
- Can be used as a dispersant modifying vehicle at 10-20%
- Excellent adhesion to most plastics
- Excellent printability

#### Physical Properties

- Viscosity 45 – 60 Poise (Rheometer)
- Specific Gravity 1.14
- Solids > 99%

#### Suggested Starting Ink Formulary

Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application

#### 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 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 this in this Technical Data Sheet.

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DATE REVISED: 01/17/2016

# Technical Data Sheet

## KS-326

Kustom Kure UV Flexo  
Extending Vehicle

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### Product Description

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KS-326 is a UV letback vehicle based on epoxy acrylate for paper. Typical applications include commercial and folding carton, most paper substrates including paperboard. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

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- Excellent cure response
- Excellent gloss
- Low Viscosity
- Excellent flow

### Physical Properties

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- Viscosity 30 – 35 sec. #3 Zahn
- Specific Gravity 1.13
- Solids > 99%

### Suggested Starting Ink Formulary

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Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

### 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-359

Kustom Kure Acrylated  
Polyester Oligomer

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### Product Description

KS-359 is recommended as an additive for UV-curable inks to enhance flexibility and pigment wetting. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

### Performance Characteristics

- Excellent pigment wetting
- Excellent flexibility
- Good adhesion to plastic

### Physical Properties

- Viscosity 65 – 85 Poise
- Specific Gravity 1.10
- Solids > 99%

### Suggested Starting Ink Formulary

Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

### 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-373

### Photoinitiator Compound



#### Product Description

KS-373 is a balanced photoinitiator recommended for use in UV-curable lithographic and flexographic inks (except tints)\* where high performance and fast cure response are desired. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- For use with all standard organic and select carbon black pigments (except tints)\*
- Low viscosity liquid – easy to blend into ink system
- Blend of selected photoinitiators with broad cure response

#### Physical Properties

- Viscosity 16 - 18 sec. #2 Zahn
- Specific Gravity 1.10
- Solids > 99%
- Appearance Liquid

#### Suggested Starting Ink Formulary

KS-373 can be used at a concentration of 5-10% by weight of the total formula. KS-373 may also be used in combination with other photoinitiators. Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

#### 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.

\*Test beforehand. KS-210 can be used for tints.

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DATE REVISED: 01/17/2016



# Technical Data Sheet

## KS-377

### BZP Free Photoinitiator Compound



#### Product Description

KS-377 is a balanced photoinitiator recommended for use in UV-curable lithographic inks (except whites and tints)\* where high performance and fast cure response are desired. KS-377 contains no benzophenone (BZP). For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- For use with all standard organic and select carbon black pigments (except whites and tints)\*
- Low viscosity liquid – easy to blend into ink system
- Blend of selected photoinitiators with broad cure response
- Benzophenone (BZP) free

#### Physical Properties

- |                    |                      |
|--------------------|----------------------|
| • Viscosity        | 17 - 19 sec. #2 Zahn |
| • Specific Gravity | 1.09                 |
| • Solids           | > 99%                |
| • Appearance       | Liquid               |

#### Suggested Starting Ink Formulary

KS-377 can be used at a concentration of 5-10% by weight of the total formula. KS-377 may also be used in combination with other photoinitiators. Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

#### 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.

\*Test beforehand. KS-246 can be used for whites and tints.

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DATE REVISED: 01/17/2016



# Technical Data Sheet

## KS-380

### Kustom Kure UV Flexo Extender



#### Product Description

KS-380 is recommended as a balanced flexo extender vehicle for UV-curable flexographic inks where high performance and fast cure are desired. Typical applications include label and folding carton work on paper, paperboard. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Excellent cure response
- Excellent printability
- Low Thixotropy

#### Physical Properties

- Viscosity 24 – 27 sec. #3 Zahn
- Specific Gravity 1.11
- Solids 100%

#### Suggested Starting Ink Formulary

Please refer to the SUGGESTED INK FORMULARY bulletin for starting ink formulations. These are intended as starting formulae only. Substrate, press and other variables must be addressed by the formulator for each application.

#### 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

## LED-252

### LED Liquid Photoinitiator



#### Product Description

LED-252 is a unique liquid LED photoinitiator easily incorporated into flexo or offset ink formulas as well as overprints and coatings for maximum through cure for various lamp settings. Recommended dosage of 10-15% is typical but may vary depending on ink or coating. For additional information regarding formulary assistance and applications, please contact your KUSTOM SERVICES, INC. representative.

#### Performance Characteristics

- Effective in typical LED emission ranges 365nm, 385nm or 395nm.
- Best results with LED lamps of 8 watts or higher
- Blend of select photoinitiators with amine synergist

#### Physical Properties

- Viscosity 13 - 15" #3 Zahn @ 25C
- Specific Gravity 1.08
- Solids > 99%
- Appearance Liquid\*

\*CAUTION: Although rare, upon aging LED-252 may start to crystallize. A simple warming of LED-252 at 140-170°F, will reconstitute the material safely.

#### Storage and Handling Information

**\*\*Care should be taken to reduce the exposure of any light, especially fluorescent light, to LED coating, as prolonged exposure can cause uncontrollable polymerization of the product with generation of heat.**

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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DATE REVISED: 01/18/2016

## TECHNICAL DATA SHEET

# KF-5006

## Colloidal Dispersion Vehicle



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### PRODUCT DESCRIPTION

KF-5006 is a colloidal dispersion of all acrylic resin. This product offers competitive economics while exhibiting excellent press stability. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

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### PERFORMANCE CHARACTERISTICS

- Excellent press stability
- High viscosity for good pigment dispersion
- Excellent transfer and printability
- Significantly low amounts of VOC containing glycols required

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### PHYSICAL PROPERTIES

- **Appearance:** Clear colloidal dispersion
- **Solids:** 20 - 25%
- **pH:** 8.7 – 9.2
- **Tg:** 22C
- **Shelf Life:** One year (unopened container)

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DATE REVISED 01/17/2016

## TECHNICAL DATA SHEET

# KF-5007

## Napkin AQ Flexo Ink Vehicle



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### PRODUCT DESCRIPTION

KF-5007 is a blend of acrylic resin specifically formulated for use in the production of aqueous flexo ink for napkins. This product offers competitive economics while exhibiting excellent press stability. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

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### PERFORMANCE CHARACTERISTICS

- NO clays or alcohol for increased formulary flexibility
- NO alcohol for reduced VOC ink formulations
- Broadly compatible with many different flexo pigment dispersions
- Significantly low amounts of VOC containing glycols required
- Excellent transfer and printability

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### PHYSICAL PROPERTIES

- **Appearance:** Milky liquid
- **Solids:** 35 - 40%
- **Viscosity:** 30 – 40 seconds #3 Signature Zahn Cup
- **pH:** 8.5 – 9.0
- **Shelf Life:** One year (unopened container)

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DATE REVISED 01/17/2016

## TECHNICAL DATA SHEET

# KF-5012



## Corrugated AQ Flexo Ink Vehicle

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### PRODUCT DESCRIPTION

KF-5012 is a blend of acrylic resin specifically formulated for use in the production of aqueous flexo inks for corrugated substrates. This product offers competitive economics while exhibiting excellent press stability. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

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### PERFORMANCE CHARACTERISTICS

- NO clays or alcohol for increased formulary flexibility
- NO alcohol for reduced VOC ink formulations
- Broadly compatible with many different flexo pigment dispersions
- Significantly low amounts of VOC containing glycols required
- Excellent transfer and printability

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### PHYSICAL PROPERTIES

- **Appearance:** Milky liquid
- **Solids:** 35 - 40%
- **Viscosity:** 30 – 40 seconds #3 Signature Zahn Cup
- **pH:** 8.5 – 9.0
- **Shelf Life:** One year (unopened container)

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## TECHNICAL DATA SHEET

# KF-5017

## Envelope Extender



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### PRODUCT DESCRIPTION

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KF-5017 is a blend of acrylic resin specifically formulated for use in the production of aqueous flexo ink for envelopes. This product offers competitive economics while exhibiting excellent press stability. For additional information regarding specific applications, please contact your KUSTOM SERVICES, INC. representative.

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### PERFORMANCE CHARACTERISTICS

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- NO clays or alcohol for increased formulary flexibility
- NO alcohol for reduced VOC ink formulations
- Broadly compatible with many different flexo pigment dispersions
- Significantly low amounts of VOC containing glycols required
- Excellent transfer and printability

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### PHYSICAL PROPERTIES

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- **Appearance:** Milky liquid
- **Solids:** 32 - 34%
- **Viscosity:** 13 - 15 seconds #3 Signature Zahn Cup
- **pH:** 8.8 – 9.3
- **Shelf Life:** One year (unopened container)

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### FOR YOUR PROTECTION:

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