

K-FLEX® PRODUCT INTRO

NEW K-FLEX® XM-366 Low Viscosity Polyester Diol for VOC Reduction & Flexibility

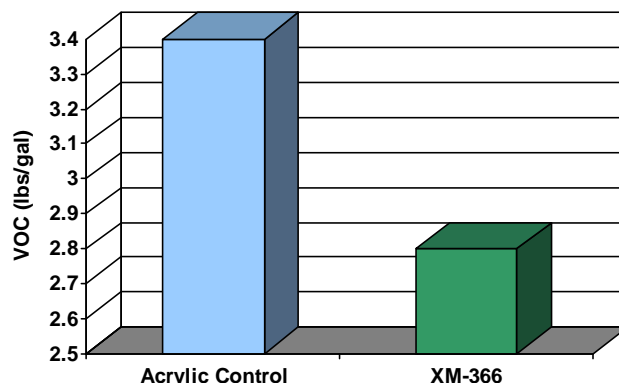
K-FLEX XM-366 is a new low viscosity, low color, 100% active Polyester Diol designed for use as a resin modifier of acrylic/isocyanate or acrylic/melamine systems to increase flexibility and reduce VOC's. Key benefits and attributes include:

- Excellent flexibility
- Significant reductions in VOC's
- Low viscosity and low color
- Excellent compatibility and solubility
- Refractive index close to glass

Performance: 2K Pigmented Polyurethane Coating

VOC Reduction

Performance shown is based on King's Formulation API-15, where 20% of an acrylic resin by weight was replaced with XM-366 in a 2k pigmented acrylic urethane coating. As shown in the graph to the right, this modification lowered VOCs by over 18%.



Hardness & Flexibility

As detailed in the adjacent table and the photographs below, the K-FLEX XM-366 modification resulted in significant improvements in film flexibility while maintaining excellent hardness.

Typical Properties (30 min./80°C + 1 Week)	Acrylic Control	K-FLEX XM-366
Pencil Hardness	H-2H	H-2H
Pendulum, Cycles	119	109
Reverse Impact, in-lbs	<5	160+
Direct Impact, in-lbs	30-40	160+

Photographs of Reverse Impact Resistance



Control: Failure
5 in-lbs

Control: Failure
160 in-lbs

K-FLEX XM-366
Modified - Pass
160 in-lbs

Please see reverse...

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NEW K-FLEX® XM-366

SYSTEMS



K-FLEX XM-366 is designed for use as a modifier for solventborne, high solids and solventless systems. It is highly recommended for acrylic/isocyanate and acrylic/melamine systems.

APPLICATIONS

Coatings



Automotive refinish coatings, aerospace, transportation coatings - rail/bus/truck/heavy equipment, plastic coatings and general industrial.

Other



Cast elastomers, potting compounds and encapsulants.

SOLUBILITY

K-FLEX XM-366 SOLUBILITY

Alcohols	Soluble	t-butyl acetate*	Soluble
Glycols	Soluble	Acetone*	Soluble
Ketones	Soluble	Oxsol® 100*	Soluble
Esters	Soluble	Aromatic Hydrocarbons	Soluble
Glycol ethers	Soluble	Aliphatic Hydrocarbons	Insoluble
Water	Insoluble	*Exempt Solvents; Oxsol® 100 is a product of Makhteshim-Agan of North America Inc.	

TYPICAL PROPERTIES

TYPICAL PROPERTIES

Appearance	Clear liquid	Hydroxyl #	265
Active, %	100	Viscosity, cPs, 25°C	2,000
Gardner Color	1	Pounds per Gallon	9.3

KING FORMULATIONS

AVAILABLE FORMULATIONS & ADDITIONAL INFORMATION

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36 FLEX CLEARCOAT BASED ON BASF JONCRYL 9047 AND BAYER DESMODUR IS 2200*

36 FLEX CLEARCOAT is a clear, two-component, solventborne acrylic urethane system. It is designed for use as a clear topcoat on a variety of substrates. It is highly recommended for use on acrylic, polyurethane, and polyurethane primers. It is not recommended for use on epoxy primers. It is not recommended for use on metal substrates. It is not recommended for use on wood substrates. It is not recommended for use on concrete substrates. It is not recommended for use on masonry substrates. It is not recommended for use on glass substrates. It is not recommended for use on plastic substrates. It is not recommended for use on fabric substrates. It is not recommended for use on leather substrates. It is not recommended for use on paper substrates. It is not recommended for use on cardboard substrates. It is not recommended for use on metal substrates. It is not recommended for use on wood substrates. It is not recommended for use on concrete substrates. It is not recommended for use on masonry substrates. It is not recommended for use on glass substrates. It is not recommended for use on plastic substrates. It is not recommended for use on fabric substrates. It is not recommended for use on leather substrates. It is not recommended for use on paper substrates. It is not recommended for use on cardboard substrates.

PROPERTY	UNMODIFIED	36 FLEX CLEARCOAT
ASTM D 3359 - Adhesion (Cross-hatch)	1B	1B
ASTM D 3359 - Adhesion (Wheelabrator)	1B	1B
ASTM D 3359 - Adhesion (Scribe)	1B	1B
ASTM D 3359 - Adhesion (Tape)	1B	1B
ASTM D 3359 - Adhesion (Solvent)	1B	1B
ASTM D 3359 - Adhesion (Water)	1B	1B
ASTM D 3359 - Adhesion (Salt)	1B	1B
ASTM D 3359 - Adhesion (Acid)	1B	1B
ASTM D 3359 - Adhesion (Alkali)	1B	1B
ASTM D 3359 - Adhesion (UV)	1B	1B
ASTM D 3359 - Adhesion (Heat)	1B	1B
ASTM D 3359 - Adhesion (Cold)	1B	1B
ASTM D 3359 - Adhesion (Impact)	1B	1B
ASTM D 3359 - Adhesion (Abrasion)	1B	1B
ASTM D 3359 - Adhesion (Chemical)	1B	1B
ASTM D 3359 - Adhesion (Mechanical)	1B	1B
ASTM D 3359 - Adhesion (Electrical)	1B	1B
ASTM D 3359 - Adhesion (Thermal)	1B	1B
ASTM D 3359 - Adhesion (Acoustic)	1B	1B
ASTM D 3359 - Adhesion (Optical)	1B	1B
ASTM D 3359 - Adhesion (Magnetic)	1B	1B
ASTM D 3359 - Adhesion (Gravitational)	1B	1B
ASTM D 3359 - Adhesion (Nuclear)	1B	1B
ASTM D 3359 - Adhesion (Cosmic)	1B	1B
ASTM D 3359 - Adhesion (Particle)	1B	1B
ASTM D 3359 - Adhesion (Radiation)	1B	1B
ASTM D 3359 - Adhesion (Electromagnetic)	1B	1B
ASTM D 3359 - Adhesion (Gravitational)	1B	1B
ASTM D 3359 - Adhesion (Nuclear)	1B	1B
ASTM D 3359 - Adhesion (Cosmic)	1B	1B
ASTM D 3359 - Adhesion (Particle)	1B	1B
ASTM D 3359 - Adhesion (Radiation)	1B	1B
ASTM D 3359 - Adhesion (Electromagnetic)	1B	1B

Product Data Sheet K-FLEX XM-366

King Formulation API-15



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