

Product Data Sheet

K-FLEX[®] UD-320W Polyurethane Polyols



Science Road
Norwalk, CT 06852
(800) 431-7900
Fax: (203) 866-1268
E-Mail: coatings@kingindustries.com

K-FLEX UD-320W is an aqueous solution of an aliphatic, low molecular weight urethane diol oligomer. It is recommended as a modifier for amino crosslinked water soluble and emulsified acrylic, alkyd, urethane and polyester resins. K-FLEX UD-320W can be used as a reactive cosolvent replacement to increase solids, crosslink density, improve film/resistance properties and flow/leveling.

APPLICATIONS: Emulsions or water-borne thermoset coatings crosslinked with aminoplasts:
Coil coatings
Overprint varnishes
Appliance coatings
Automotive coatings
Wood coatings
Can coatings
Dip coatings

ADVANTAGES: Allows cosolvent reduction (lower-VOC)
Water soluble without using amine and cosolvent
Reduced Popping
Increased hardness
Good chemical/stain resistance
Improved flow/leveling (higher gloss)
Good hydrolytic stability
Excellent QUV resistance/exterior durability
Anti-skinning

TYPICAL PROPERTIES:	Appearance	Viscous Clear liquid
	% Active	88
	Volatile	Water
	Viscosity, cPs, 25° C	6,500
	Hydroxyl number (as supplied)*	315
	Hydroxyl equiv. weight (as supplied)	178
	Acid number	0.5
	Color, Gardner	2
	Weight per gallon lbs.	9.5
	*Calculated on resin hydroxyls	

SOLUBILITY: Soluble in water and in all water miscible organic solvents.

TYPICAL USAGE LEVELS: K-FLEX UD-320W should be used as a reactive resin modifier at 2-15% of total resin solids. At levels greater than 5% the aminoplast ratio should be increased. For more details see chart in K-FLEX urethane diol brochure.

SHELF LIFE: Minimum of 24 months from date of manufacture, when stored in the original container at ambient conditions.

HANDLING & STORAGE: Store in a cool, dry location. Please consult Material Safety Data Sheet for further information.

REGULATORY: Please refer to Section 15 of the Material Safety Data Sheet for information.

File:K-FLEX_UD-320W

Issue Date: 8/7/02

Supersedes: 9/6/00

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APPLICATIONS: Emulsions or water-borne thermoset coatings crosslinked with aminoplasts:
Coil coatings
Overprint varnishes
Appliance coatings
Automotive coatings
Wood coatings
Can coatings
Dip coatings

ADVANTAGES: Allows cosolvent reduction (lower-VOC)
Water soluble without using amine and cosolvent
Reduced Popping
Increased hardness
Good chemical/stain resistance
Improved flow/leveling (higher gloss)
Good hydrolytic stability
Excellent QUV resistance and exterior durability
Anti-skinning

TYPICAL PROPERTIES:	Appearance	Straw colored liquid
	% Active, wt. %	88
	Diluent	Water
	Viscosity, cPs, 25° C	3,000
	Hydroxyl number (as supplied)*	325
	Hydroxyl equiv. Weight (as supplied)	170
	Color, Gardner	2
	Weight per gallon, lbs.	9.4
	*Calculated on resin hydroxyls	

SOLUBILITY: K-FLEX UD-350W is soluble in water and in all water miscible organic solvents. It is not soluble in aliphatic and aromatic hydrocarbons.

TYPICAL USAGE LEVELS: K-FLEX UD-320W should be used as a reactive resin modifier at 2-15% of total resin solids. At levels greater than 5% the aminoplast ratio should be increased. For more details see chart in K-FLEX urethane diol brochure.

SHELF LIFE: Minimum of 24 months from date of manufacture, when stored in the original container at ambient conditions.

HANDLING & STORAGE: Store in a cool, dry location. Please consult Material Safety Data Sheet for further information.

REGULATORY: Please refer to Section 15 of the Material Safety Data Sheet for information.

File:K-FLEX UD-350W

Issue Date: 8/7/02

Supersedes: 12/30/99

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