

K-FLEX® UD-350W Polyurethane Diol



Science Road Norwalk, CT 06852 (800) 431-7900 Fax: (203) 866-1268

E-Mail: coatings@kingindustries.com

K-FLEX UD-350W 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-350W 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 and exterior durability

Anti-skinning

TYPICAL Appearance Straw colored liquid

PROPERTIES: % 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

The conditions of your use and application of our products, technical assistance and information (whether verbal, written or by way of product evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. Such testing has not necessarily been done by King Industries, Inc. ("King"). The facts, recommendations and suggestions herein stated are believed to be reliable; however, no guaranty or warranty of their accuracy is made. EXCEPT AS STATED, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE. KING SHALL NOT BE HELD LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES. Any statement inconsistent herewith is not authorized and shall not bind King. Nothing herein shall be construed as a recommendation to use any product(s) in conflict with patents covering any material or its use. No license is implied or granted under the claims of any patent. Sales or use of all products are pursuant to Standard Terms and Conditions stated in King sales documents.