

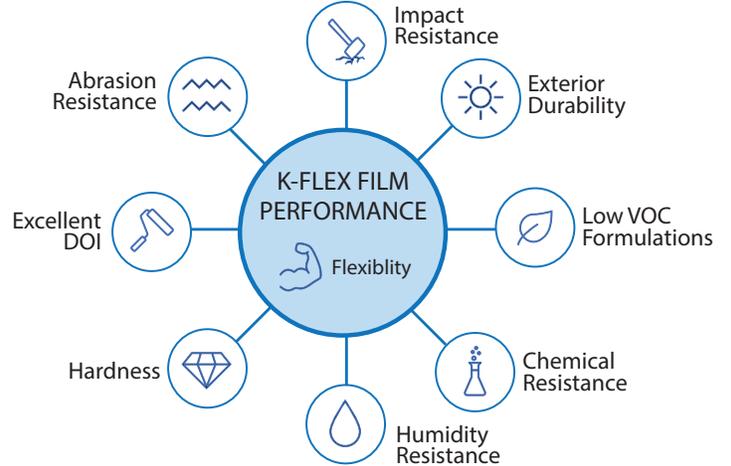
# K-FLEX® Series

## High Performance Polyester Diols

### K-FLEX® Polyester Diols

The **K-FLEX Polyester Diols** are unique flexibilizers, designed to be used as resin modifiers (typically 5 to 25% on TRS) to boost performance. They are especially effective in SB and 100% solids 2K PU coatings.

- ✔ 100% active
- ✔ Linear and aliphatic
- ✔ Optically clear
- ✔ Low molecular weight
- ✔ Narrow molecular weight distribution



### Typical K-FLEX Performance

With K-FLEX modification, the coating will benefit from improved flexibility, while maintaining hardness, chemical resistance and adhesion. Due to the absence of carboxylic acid groups, K-FLEX is hydrolytically stable providing exterior durability.

### Hardness, Flexibility, & Exterior Durability

#### Acrylic 2K PU Modification

FILM PROPERTIES	Control	K-FLEX
MEK Resistance (2X Rubs)	100+	100+
Pendulum hardness, cycles	119	115
Reverse impact	<5	160+

Both the control and the modified system exhibited 100% crosshatch adhesion

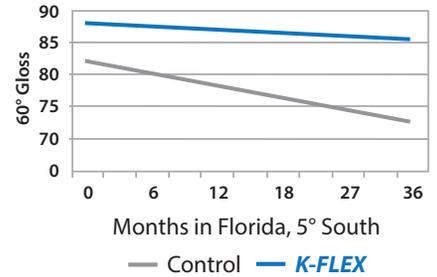
Formulation API-20

#### Reverse Impact



Formulation API-20

#### 36 Months Florida Exposure



Formulation PI-5

### Chemical Resistance

#### 2K PU Casting Gasoline Soak, 30 Hours



Control

K-FLEX

Formulation PI-13

#### Zero VOC 2K PU Floor Coating Transmission Fluid, 3 Day Spot Test



Exposure days  
Control

Exposure days  
9% K-FLEX

Formulation PI-13



K-FLEX Logo	Hydroxyl # as Supplied	Viscosity 25°C (cP)	Tg	Flexibility	Exterior Durability	Impact Resistance	Excellent DOI	Low VOC	Abrasion Resistance	Humidity Resistance	Chemical Resistance	Hardness
				Flexibility	Exterior Durability	Impact Resistance	Excellent DOI	Low VOC	Abrasion Resistance	Humidity Resistance	Chemical Resistance	Hardness
<b>188</b>	230	10,000	-32									
<b>A308</b>	260	1,500	-59									
<b>XM-332</b>	265	400	-68									

= Applicable    = Most applicable

### Typical Applications

The typical applications for K-FLEX are primarily solventborne and 100% 2K PU, but also melamine bake and blocked isocyanates.

- Coatings**
  - Aerospace
  - Vehicle refinish, metro, railcar
  - General industrial, maintenance, marine, heavy duty equipment
  - Agricultural equipment, construction equipment
  - Floor coatings
- Elastomers**
  - Doming & potting compounds, encapsulants
  - Optically clear films, transparencies, ophthalmic lenses, windows, canopies
  - Ballistic armor, wind turbines, voltaic cells
- Adhesives**
  - Structural adhesives
  - Light stable clears & laminates



### Contact Information

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