







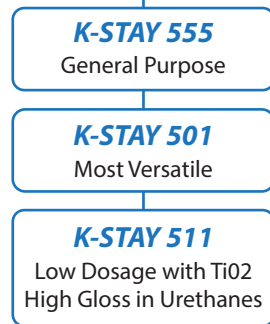
**K-STAY<sup>®</sup>**

*Guide to Rheology Modifiers  
For Solventborne and Waterborne Coatings*

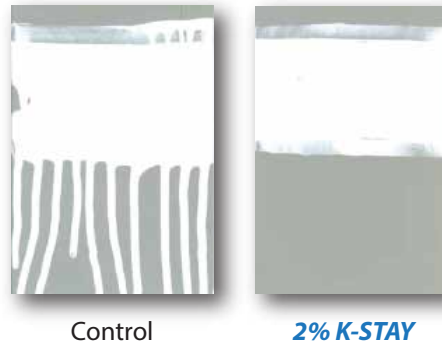
**K-STAY 500 Series** are pourable liquid rheology modifiers based on unique sulfonate technology. Benefits include:

-  Excellent anti-settle & anti-sag performance
-  High gloss and gloss retention
-  High efficiency - low use levels
-  Ease of use - pourable liquids

### Solvent Based Systems



### K-STAY - 2K Urethane Performance



### K-STAY 501 Performance

K-STAY 501 was evaluated against other common rheology modifiers in a polyester melamine bake coating.

The K-STAY 501 modified coating had the best gloss and best sag resistance. Performance is shown in the table to the right.

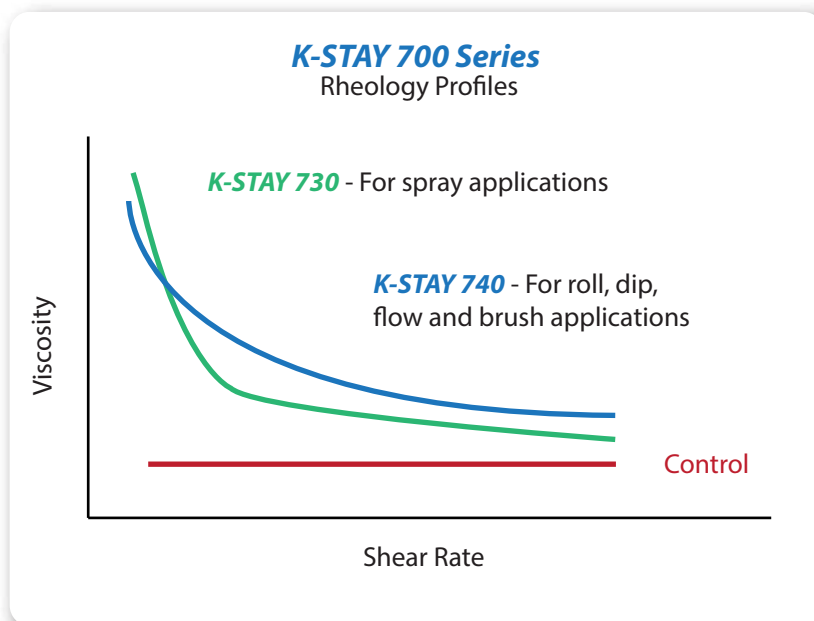
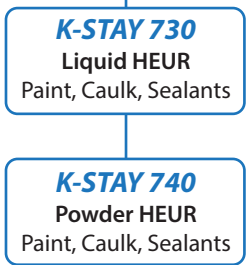
FILM PROPERTIES	Organo Clay	Oxidized Polyethylene	Fumed Silica	<b>K-STAY 501</b>
Use Level (weight %)	1	2	1	<b>1</b>
Sag, 350°C	3 mil	1.5 mil	1.5 mil	<b>6 mil</b>
60° Gloss	44	88	47	<b>93</b>
Brookfield Vis. (6 rpm, cPs)	440	360	940	<b>1800</b>
Brookfield Vis. (60 rpm, cPs)	250	270	370	<b>530</b>
Shear Thinning Index (STI 6/60)	1.8	1.3	2.5	<b>3.4</b>

# K-STAY 500 SERIES

Product	Composition	% Active	Treat Rate	Attributes / Uses	
<b>SOLVENTBORNE</b>	<b>501</b>	Overbased Calcium Sulfonate Light Aromatic Naphtha	50	1-5%	For solventborne systems, including polyester/melamine, acrylic/melamine, alkyd/melamine, 2K urethanes and epoxies.
	<b>511</b>	Sulfonate Light Aromatic Naphtha	50	1-5%	Ultra high efficiency in TiO2 containing paints. Excellent gloss in urethane formulations.
	<b>555</b>	Overbased Calcium Sulfonate Light Aromatic Naphtha - MS	57	1-5%	General purpose anti-sag and anti-settling for solventborne systems. Economical, efficient and easy to use.

The graph below illustrates the rheological profiles of the K-STAY 700 Series for waterborne systems. The bottom red line represents the control formulation. As shown, adding a low to medium shear thickener (**K-STAY 740**) provides shear thinning and is suitable for coatings applications (i.e. roll, brush or dip). Adding a high shear thinning thickener (**K-STAY 730**) provides excellent spray properties.

**Waterborne Systems**



**K-STAY 730** is a zero VOC, Hydrophobically modified urethane thickener with pseudoplastic characteristics. It is ideally suited for high film build, spray applied formulations.

**K-STAY 740** is 100% solids free flowing powder. It complies with FDA 21 CFR 175.105 (indirect contact such as adhesives for food packaging) and 175.300 for direct contact coatings. It is ideal for use in paints, caulks and sealants.



**K-STAY 730** can be added in grind or let-down where predilution with water will ease incorporation.

**K-STAY 740** can be added directly to the pigment grind. If post-added, it is recommended to prepare a pourable gel prior to addition.

# K-STAY 700 SERIES

	Product	Composition	% Active	Treat Rate	Attributes / Uses
WATERBORNE	<b>730</b>	HEUR* Thickener Water	50	0.5-4%	High shear thinning. Well suited for high film build, spray applied applications.
	<b>740</b>	HEUR Thickener	100	0.2-1%	Supplied as free flowing powder. Shear thinning. Easy to handle.

\*Hydrophobically modified urethane thickener

Notes:

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