

King Catalysts for Silane Modified Coatings

King offers a wide variety of catalysts for silane modified coatings. As shown in the chart below a good starting point rule of thumb is that catalysts with a higher acid strength are effective with Ethoxy Silanes while weaker acids and organo metallic complexes are effective with Methoxy Silanes.

<p>Acid Strength</p>	<p>Higher Acid Strength Ethoxy Silanes</p>	<p>TOPCOATS & BASECOATS</p> <p>NACURE 5965 NACURE XC-8212</p>	<p>BASECOATS</p> <p>NACURE 5965 NACURE XC-8212</p>	<p>PRIMERS</p> <p>NACURE 1953</p>
	<p>Weaker Acid Strength Methoxy Silanes</p>	<p>NACURE 4167 NACURE 4575</p>	<p>K-KAT XK-604 K-KAT XK-635</p>	<p>K-KAT XK-637</p>
		<p><i>Less Hydrophobic</i></p>	<p><i>More Hydrophobic</i></p>	



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PRODUCT	Type*	Benefits/Uses	Coating Systems Modified With Silanes Catalyst Selection and Typical Starting Point Use Levels			
			Melamine Crosslinker**	2K Urethane	Blocked NCO	Air Dry Alkyds & Acrylics
NACURE® 1953	DNNSA	Higher temperature applications	FAM 0.5%			
NACURE 5965	DDBSA	Good UV resistance, clearcoats and topcoats	FAM 0.5%			
NACURE 4167	AP	Blocked version of 4054	PHNH 0.5%	0.5%		
NACURE 4575	AP	Blocked version of XP-333	PHNH 0.5%	0.5%	0.5%	
NACURE® XC-8212	Zn Complex	Good UV resistance, clearcoats and topcoats	FAM 0.5%		0.5%	
K-KAT XK-604	Mixed Carboxylate	Induction period followed by snap cure for 2K PU		0.3-0.5%	0.2-0.7%	0.5%
K-KAT XK-635	Zn Complex	Similar cure to organotins, more selective		0.1-0.5%	0.1-0.5%	
K-KAT XK-637	Zn Carboxylate	For air dry and heat cured systems		0.3-0.5%	0.3-0.5%	0.5%

PRODUCT TYPE: * DNNSA = Dinonylnaphthalene Sulfonic Acid, DNNSA = Dinonylnaphthalene Disulfonic Acid, DDBSA = Dodecylbenzene Sulfonic Acid, AP= Acid Phosphate, MELAMINE TYPE: ** FAM = Fully Alkylated Melamines, Urea-formaldehyde, Glycoluril, Benzoquanamine PHNH - Polymeric, Partially Alkylated and High NH Melamines

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