

## Non-Tin, Non-Mercury Catalysts for Polyurethanes

**K-KAT catalysts** are metal compounds designed for accelerating the crosslinking reaction of isocyanates with polyols. In addition to replacing tin and mercury catalysts that are under regulatory scrutiny due to their toxicity, K-KAT catalysts offer a wide range of performance advantages. Benefits include an improved pot life/cure time relationship, less gassing in the presence of water, improved low temperature cure response, catalysis of secondary hydroxyl groups, and excellent film properties. Below are two K-KAT selection charts focusing on metal and application chemistry.

### Metal Type

**Performance Advantages**

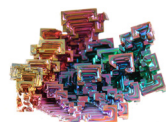
Excellent
  Very Good
  Good
  Not Recommended

**ADVANTAGES**

METAL	Tin	Bismuth	Zirconium	Aluminum	Zinc	Complexes	Mixed Metals
PRODUCTS	DBTDL	K-KAT XK-651	K-KAT 6212 K-KAT 4205	K-KAT 5218	K-KAT XK-635 K-KAT XK-672	K-KAT XK-614 K-KAT 682LV	K-KAT XK-604
Efficient (low dosage)	●	●	◐	○	—	●	○
Selective (less gassing)	○	◐	●	◐	○	○	◐
Low temp. active	◐	●	●	○	○	◐	◐
Latent (extends pot life)	—	—	◐*	●**	◐	◐	◐
Front-end active	◐	●	◐	○	—	◐	○
Back-end active	●	○	○	◐	●	◐	◐
Hydrolytically stable	◐	◐	—	○	●	●	◐

\*4205 only

\*\* w/ 2,4-PD



# K-KAT®

## Non-Tin, Non-Mercury Catalysts for Polyurethanes

### Applications

CHEMISTRY	SB 2K PU	WB 2K PU	1K Blocked NCO PU	1K Moisture Cure PU	100% NV 2K PU
PRODUCTS	K-KAT XK-651 K-KAT XK-635 K-KAT 4205 K-KAT 5218	K-KAT XK-614 K-KAT 6212	K-KAT XK-672 K-KAT XK-635 K-KAT 682LV	K-KAT XK-614	K-KAT XK-604 K-KAT XK-651 K-KAT XK-672
APPLICATIONS	Automotive Exterior General Industrial Flooring	Automotive Interior Maintenance Flooring	Coil Coatings Packaging General Industrial	Sealants Floor Coatings Binders	Cast Elastomers Adhesives Floor Coatings



### Performance Examples

Better Pot Life Stability = Better Gloss Retention  
Gloss of panels coated with aged paint



2 hours with DBTDL  
*Loss of Gloss*  
Gloss 60° = 30.3



3 hours with K-KAT  
*Retains Gloss*  
Gloss 60° = 95.8

Hydrolytic Stability  
Polyol Spiked with 0.1% Water  
After 24 hours



*K-KAT XK-651*  
*Clear*

Competitive Bismuth  
*Hazy*

Conventional competitive bismuth hydrolyzed forming bismuth hydroxide which precipitated out.

Selectivity  
WB 2K PU



No Catalyst

DBTDL

*K-KAT 6212*



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