



CUCAT-K6

Urethane Catalyst (A substitute for organic mercury)

CUCAT-K6 is a versatile effective catalyst, recommending to both aromatic (MDI/TDI) and aliphatic (HDI/IPDI/HMDI) PU systems for CASE applications. It is a proprietary mixed organo metallic complex specially formulated to be a substitute to mercury catalysts without the toxicity (heavy metal, PAH, phthalate plasticizers) concerns. It can pass China and EU environmental regulations.

Typical Properties	Appearance	Clear, light yellow liquid
	Colour (APHA)	≤400
	Density (g/cm ³ , 25°C)	1.062
	Viscosity (mPa.s, 25°C)	900±100

Solubility Soluble in normal polyurethane raw materials (polyether polyol, plasticizer)

Applications CUCAT-K6 is a wide applicable catalyst recommend to use in 2-component polyurethane system, provides gel times and cure properties are very similar to mercury catalysts. It can be used in diverse PU CASE applications both in aromatic and aliphatic systems, such as caster, rubber plate, PU sports venues, coatings, adhesive & sealant.

Advantage Descriptions **CUCAT-K6 is upgrade substitute for organic mercury catalyst. The unique characteristics are following:**

- **Insensitive to the reaction of isocyanates and moisture.**
Excellent target catalyzing to the reaction between isocyanates and hydroxyl/amino group, without catalyzing to the reaction between isocyanates and moisture. This is totally different with the Tin/Amine catalysts. Even in damp weather, ambient curing applications, CUCAT-K6 still performs well to effectively prevent the CO₂ bubbles formed. Therefore, the cured-surface problems, including pinhole, cracking, bulging, peeling, can be solved obviously.
- **Thermal sensitive.**
Slow catalytic rate at early reaction stage can keep low viscosity and improve flowing ability, which is important for reducing mechanical bubbles and filling moulding chamber rapidly. Catalytic rate accelerates very quickly at post curing stage. CUCAT-K6 can catalyze isocyanates-polyols mixture to attain required curing hardness within 10min (even short, depending on usage levels). Therefore, CUCAT-K6 is the best substitute for organic mercury with very similar catalytic properties, both in thermo-cured and ambient-cured, and non-toxicity concerns.

Typical Usage Levels ● Suggest adding in polyol component after vacuum degassing.



- To add CUCAT-K6, the polyol component temperature should be below 80°C at least.
- Levels of 0.05-0.5% as supplied by weight on total polyol volume.
- We don't suggest to add in isocyanate component. To avoid gel, please do test before adding in isocyanate component to make sure the storage stability.

Handling & Storage

CUCAT-K6 is sensitive to moisture. Therefore, exposure to atmosphere should be avoided. Product should be stored in a cool, dry environment away from sunlight and excessive heat.

Package

25kg/200kg in HDPE drum

Shelf Life

The unopened shelf life is 12 months from the date of manufacture. After shelf life, please do test to make sure the catalytic properties before use.

All recommendation and technical information (whether verbal, written or by way of product evaluations), including any suggested formulations contained herein is provided for information purpose only and does not constitute a legal contract as well as suitable for relating to the third party rights. The conditions of your use and application of our products, technical assistance and information are beyond our control. Therefore, no guaranty or warranty for your evaluation is made. Consequently the user assumes all risks in connection with the use and handling of this product based on our technical information and recommendations, final determination of suitability of this product is the sole responsibility of the user.