



CUCAT-HS Polyurethane Catalyst

CUCAT-HS is an effective catalyst for the reaction of isocyanates and polyols with hydroxyl groups used in the production of cast elastomers. It is a specially formulated to be an alternative to mercury catalysts without the toxicity concerns. It can pass China and EU environmental regulations.

Typical Properties	Appearance	Clear, light yellow transparent liquid
	Colour (APHA)	≤320
	Density (g/cm ³ , 25°C)	1.09
	Viscosity (mPa.s, 25°C)	144

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

Applications CUCAT-HS is a wide applicable catalyst recommend to use in 2-component polyurethane system, provides gel times and cure properties similar to mercury catalysts. It can be used in diverse PU CASE applications. Recommend to apply in two-component sealants, binders, coatings, etc. Additionally, it will be more stable in conjunction with CUBD-WB.

Advantage Descriptions **CUCAT-HS is formulated for non-bubble requirement in PU CASE applications using alcohol as curing agent in MDI system. The unique characteristics are following:**

- **Restrain the reaction of isocyanates and water.**
CUCAT-HS can obviously restrain the reaction of isocyanate and water, directionally catalyzing isocyanates and polyols with hydroxyl groups. It performs well to effectively prevent the CO₂ bubbles formed. Therefore, the cured-surface problems, including pinhole, cracking, bulging, peeling, can be solved visibly.
- **Specially formulate for alcohol curing agent in MDI system.**
CUCAT-HS can orderly catalyze the reaction between hydroxyl groups and isocyanate groups. For MDI-alcohol curing system, CUCAT-HS is added in the component of PTMG or other polyhydric alcohols and BDO. It performs super catalytic activity as well as operation stability. Also, it can improve anti-scratch of the PU surfaces, significantly reduces the shrinkage rate, enhance surface gloss and dirt-resistance.
- **Provide long pot life and high catalytic activity at later curing reaction stage**
CUCAT-HS can provide long pot life although the curing time is quite short. The demould time is only 10 to 15 minutes. After then 45 to 120 minutes post-vulcanization at 80°C, or even at room temperature, it can achieve expected hardness.

CUCAT-HS is recommended to use in MDI-BDO curing system. It is not allowed to apply in the MDI-DETDA or MDI-MOCA systems.

Typical Usage Levels

- ✧ Suggest adding in polyol component after vacuum degassing.
- ✧ Levels of 0.1-0.5% as supplied by weight on total polyol volume.

Handling & Storage CUCAT-HS is sensitive to moisture. There, 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

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