

Catalyst and Additive for PU Leather Resin

1. For solvent free two-component PU leather resin.

long flow period after mixing, fast curing at high temperature, good performance and no broken line.

Recommended Products : AUCAT-RM301, AUCAT-201, CUCAT-RM60, CUCAT-S02

As a new generation of combined high efficiency catalyst suitable for solvent-free polyurethane synthetic leather slurry, they has the following characteristics:

- ◆ **Eco-friendly and not contain tin metal:** environmental protection meets the domestic and foreign markets and complies with harsh international environmental protection regulations such as REACH, ROHS, OEKO-TEX Standard 100, etc.
- ◆ **Thermal sensitive characteristics:** Suitable for roller coating process, the slurry has a long flow period after mixing and fast curing at high temperature. It solves the disadvantages of general catalysts such as too fast viscosity rise in the early stage, poor material fluidity and slow post curing. It shortens the curing time of PU resin at high temperature (130 °C).
- ◆ **It has little effect on the tear strength and elongation of the slurry after film-forming, and solves the problem of line breaking of finished leather.** Compared with commonly using amine catalysts to promote gelation, the side reaction is reduced, the toughness and tear resistance are improved.
- ◆ **Collocates the main catalyst and auxiliary catalyst to make flexible formula:** RM301 and RM60 are high activity thermal sensitive main catalysts, which can collocates with post curing auxiliary catalyst 201 with gentle catalytic activity. Basic method: determine the amount of main catalyst based on the pot life, and determine the amount of auxiliary catalyst based on the curing time after collocation.

2. For Synthetic of Leather Slurry

Recommended Products : BCAT series organic bismuth catalyst BCAT-E20, 20AP, E16, E28A, etc.

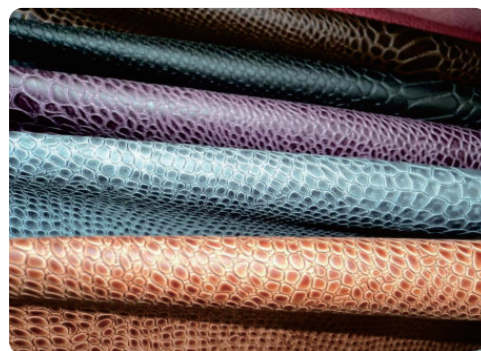
- ◆ Compare favorably with imported organic bismuth, the quality is stable and the production is of fine control, no difference in catalytic performance.
- ◆ Reactive, low VOC and other special organic bismuth meet the high-end needs of leather products.

3. For leather surface treatment

3.1 For Resin (Water-based PUD / Oil-based Resin)

Recommended Products: Organic Bismuth / Zinc Catalyst BCAT-E20, E28A, BX-EM23, etc
and Anti Hydrolysis Catalyst AUCAT-101,1301, etc

- ◆ Synthesis of water-based PUD leather surface resin, E20, E28A and other eco-friendly catalyst which substitute for tin are recommended.
- ◆ E20, E28A are recommended for synthesis of solvent based leather surface resin and aromatic isocyanate system; E20, E28A or EM23 are recommended for aliphatic isocyanate system.
- ◆ AUCAT-101 is highly compatible with polyester polyols without fogging. It is used for the synthesis of leather surface resin instead of organic bismuth and tin. It has the following characteristics:
 - ◆ Resin appearance is more transparent;
 - ◆ Improve the transparency of the dry film of resin ;
 - ◆ The gloss of resin dry film does not decrease;
- ◆ AUCAT-1301 is recommended to replace organic tin catalysts for HDI polyester resin synthesis. It has the characteristics of high activity and low addition.



3.2 For Leather finishing agent, bronzing agent, etc

Recommended Products: special functional catalyst AUCAT-101, 202, 101W, 201W, etc.

- ◆ For **oil-based** leather finishing agent, recommended 101 and 202; 101 can significantly accelerate the curing of paint film; Good compatibility, the paint film does not lose gloss; Stable storage in aqueous polar solvent, no hydrolysis failure, fast curing at low temperature; 202 has a long pot life and promotes the cross-linking and curing of the paint film. It can collocate with 101 to adjust the pot life and the curing speed of the paint
- ◆ For **water-based** leather finishing agent, 101W and 201W are recommended; It can be added to water-based resin with stable storage without failure; The paint film does not lose gloss, and cures quickly at low temperature; 101W has high catalytic activity, it can promote cross-linking reaction and improve hydrolysis resistance; The combination of the two can adjust the pot life and the curing speed of the paint film.

(refer to the brochure of *Application In Coating*)

Attached table: Product Selection Guide for applications in leather slurry.

Product Name	Model	Application Field				Property
		No Solvent PU Leather	Leather Slurry	Resin	Finishing Agent	
Catalyst	AUCAT-RM301	★★				High thermal sensitivity, high activity and long flow period
	AUCAT-202	★★				Hydrolysis resistance, mild activity, good coordination and collocation, and speed up post molding
	CUCAT-RM60	★★				Thermal sensitive and delay catalysis, speed up post moldin
	CUCAT-S02	★	★	★		Eco-friendly tin catalyst with high activity
	AUCAT-1301			★★		Eco-friendly substitute for tin, recommended for the synthesis of aliphatic PU resin.
	AUCAT-101/202				★★	Recommended for oil-based finishing agent, hydrolysis resistance, good compatibility, does not affect gloss
	AUCAT-101W/201W				★★	Recommended for water-based finishing agent, hydrolysis resistance, good compatibility, does not affect gloss
	WCAT-WS8			★★		It is recommended for moisture curing resin. It can cure fast at low temperature in winter.
	BCAT Series		★★	★★		Organic bismuth catalysts
	BX Series		★★	★★		Bismuth-zinc composite catalyst
Defoamer	YRXP-02	★			★	Good compatibility, good foam inhibition and breaking effect
Anti-yellowing antioxidant	UVK-CL2	★	★	★		Anti UV and thermal oxygen aging

Meaning of Logo: ★★ — strongly recommended ★ — recommended

The above are only some of the products in application

This guide is only a rough directional guidance. The actual formula process is complex and diverse.

The accurate suitability needs to be confirmed by test or communicated with Yourun engineer.

