



Technical Data Sheet

Product Name: One Component Moisture Curing Polyurethane Catalyst WCAT-WS8

Product Brief:

WCAT-WS8 is a high-efficiency catalyst developed for one component moisture-cured polyurethane based on the principle of crosslinking and curing reaction between water in ambient air and isocyanate group in colloid. It is an upgraded product of the existing catalyst WCAT-WS2, which significantly improves the catalytic activity, especially at low temperature and low humidity.

Typical Properties:

Model	Appearance	Colour (Fe-Co)	Density g/cm ³ (25°C)	Viscosity mPa.s (25°C)	Smell
WCAT-WS8	Light yellow to brown transparent liquid	≤ 13	1.066	26±10	With slight smell

Environmental protection:

It does not contain strictly controlled heavy metals and o-benzene toxic components. The polyurethane material synthesized with this product can pass the stringent environmental protection regulations at home and abroad.

Solubility: It is easily soluble in common polyurethane raw materials such as polyether polyol plasticizer.

Applications:

It is recommended to be used in one component polyurethane sealant, waterproof coating, silicon PU and other wet curing polyurethane materials.

Features & Advantage:

Compared with T-12 (dibutyltin dilaurate), the catalyst WCAT-WS8 has the following characteristics:

- ❖ **It has extremely abundant flow time and effectively reduces bubbles and bulges.** The one component moisture-cured polyurethane using WCAT-WS8 has slow viscosity rise in the early stage of construction, sufficient operation time, low construction viscosity and good leveling. The mechanical bubbles wrapped in the adhesive and the bubbles generated by the initial reaction can fully overflow, greatly reducing the pinholes and wrinkles on the surface after curing.
- ❖ **Both the surface and interior dry fast at low temperature in winter, especially for the drying in the middle and late stage of coating, the drying effect is obvious.** It overcomes the disadvantage that organotin driers dry too slowly at low temperature in winter. When tested at low temperature (5 °C) and ambient humidity of 10-30%, it still maintains high drying activity, which is more than twice shorter than that of T-12. It is obvious in low activity TDI system. When tested at low temperature (5 °C) and ambient humidity of 10-30%, it still maintains high catalytic activity, the drying time is more than twice shorter than that of using T-12, which is obvious in low activity TDI system.
- ❖ **Compared with T-12, the viscosity during storage is smaller.** In the process of storage stability test, the material added with WCAT-WS8 has small viscosity growth and good storage stability.
- ❖ **Environmental protection of materials.** It does not contain butyl tin and restricted heavy metals regulated by environmental protection.

User's Guide:

- It is suggested that it should be added at the later stage of the reaction of MDI/TDI with polyether polyol. (it is better after prepolymerization reaction is complete). It is not recommended to premix in polyether polyols in advance so as not to cause severe gel accidents.



- It is applicable to both TDI and MDI systems, and the use amount is less than that of T-12.
- The dosage is 0.02-0.15%, which can refer to T-12 dosage;
- Because the packaging equipment, formula and process of the user have different effects on the storage stability, it is suggested that the storage stability test must be carried out before use.
- This product has certain water-absorbing quality. Do not expose it to the air to prevent water absorption. After normal use, pay attention to immediately close the tank mouth to avoid open placement.

Handling & Storage:

Product should be stored in a cool, dry environment away from sunlight, excessive heat and rain.

Package: 25kg/200kg in HDPE drum

Shelf Life: The unopened shelf life is 12 months from the date of manufacture.

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