



Technical Data Sheet

Product Name: Organic Bismuth and Zinc Composite Catalyst BX-EM14

Typical Properties:

Appearance	Yellowish transparent liquid
Colour (Fe-Co)	<3
Density (g/cm ³ , 25°C)	1.065-1.085
Viscosity (mPa.s, 25°C)	900-1500
Non-volatile content	100%
Odor	With special compound odor

Solubility: Soluble in normal polyurethane raw materials.

Eco-friendly Characteristic:

It does not contain restricted heavy metals, polycyclic aromatic hydrocarbons and o-benzene substances, and complies with strict environmental protection regulations at home and abroad. It is an environmental protection substitute for traditional organotin, mercury, lead and other catalysts.

Applications:

It is generally used in polyurethane industry and widely used in CASE (Coating, Adhesive, Sealant and Elastomer) field.

Features & Advantage:

BX-EM14 is a composite catalyst of organic bismuth and zinc through fine control synthesis. It has the typical characteristics of eco-friendly bismuth and zinc catalyst:

- ❖ Safety and environmental protection. It can replace organic lead, mercury and tin in some applications;
- ❖ Compared with T9, it has better hydrolysis resistance stability, but it will still hydrolysis and fail in aqueous formula. Please choose AUCAT series for hydrolysis resistance catalyst.
- ❖ Promote NCO / OH reaction. In oil-based or water-based polyurethane, it can reduce the side reaction between water and NCO group and reduce the generation of CO₂ to a certain extent, but the selectivity of reducing the reaction of isocyanate with water is not as good as CUCAT-HA / HAA / PD;
- ❖ Good catalytic coordination. Organic bismuth is a highly active catalyst to promote NCO / OH reaction. Organic zinc can promote the cross-linking reaction, accelerate post curing and form faster;
- ❖ It has good compatibility and can be used alone or in combination with other organometallic compounds;
- ❖ It does not contain solvents and does not belong to VOC substances.

User's Guide:

- If it is used for polyurethane two-component composite, it is recommended to be added into polyol (P material) component. It is recommended to add it after dehydration and stir evenly;
- If it is used for coating, it is recommended to add it before on-site construction, which will have better effect than premixing.
- The general dosage is 0.02 ~ 0.8% of the weight of PU.
- It is not recommended to be added into isocyanate component (material I). If it must be added, the applicability and storage stability test must be carried out first.
- Be sure to seal and store immediately after use.

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 24 months from the date of manufacture.

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.