



Technical Data Sheet

Product Name: Low TVOC Polyurethane Catalyst

Typical Properties:

Model	Appearance	Colour (Fe-Co)	Density g/cm ³ (25°C)	Viscosity mPa.s (25°C)
CUCAT-V17A	Transparent - amber liquid	≤ 13	1.007	4200 ± 1000
CUCAT-V18	Transparent - slightly turbid brown liquid	≤ 15	1.075	2700 ± 500

Features & Advantage:

- ❖ It is specially developed for the strict regulations of TVOC in the Chinese new national standard GB36246-2018. The products do not contain isooctanoic acid and neodecanoic acid. The two characteristics of reaction type and high boiling point fully ensure that the products meet the strict regulations of TVOC.
 - I. It is not a VOC substance. The boiling point is above 315 °C, much higher than 250 °C defined by VOC, exceeding the upper limit of 287 °C specified in the TVOC standard for synthetic materials in sports venues, which will hardly increase the TVOC of synthetic materials. It solves the problem of non-compliance of TVOC regulations caused by the common organic bismuth / zinc catalysts containing isooctanoic acid and neodecanoic acid.
 - II. V17A and V18 are both reactive catalysts. The catalysts can eventually be polymerized or grafted in the polymer chain segment to become a part of the polyurethane polymer runway. There is no material in free state, so they basically will not increase the VOC or TVOC of the plastic runway.
- ❖ The mixing of component I (isocyanate) and P (polyol) has a long flow period, which is conducive to leveling, fast post curing, shorten the waiting time of post process and speed up the construction progress.

The function of V18 is similar to that of organic bismuth and V17A is similar to organic zinc. Reasonable combination ratio of V17A and V18 can ensure sufficient leveling time and ideal curing time.
- ❖ It can be premixed into component P in the production workshop in advance to avoid the inconvenience of adding on the construction site. Even if the component P is not dehydrated, it will not affect the storage stability. It solves the problem that the activity of ordinary bismuth / zinc catalyst will gradually decrease and eventually fail when it is premixed in the component P.

User's Guide:

- V series catalyst can be used alone. In order to obtain better post curing dryness and construction process, it is recommended to use it in a certain proportion according to the formula needs. The recommended ratio is V17A: V18 = 1:1.
- The dosage is generally 0.1-0.3% (by weight of component P), which can be added during production or on construction site according to actual needs; Follow the principle of less dosage in summer and more in winter; It is not recommended to add into component I (isocyanate). If it is a must, a feasibility test is necessary to avoid the risk of gelation in synthetic process and storage tank.

Notices:

- ◆ V17A and V18 products, whether used alone, mixed or diluted, will not affect their extremely high storage stability.
- ◆ V17A and V18 can be diluted with general plasticizer, polyether or common solvent, but solvent is not recommended due to TVCO control.

Handling & Storage:

Product should be stored in a cool, dry environment away from sunlight, excessive heat and rain. The color of the product may gradually deepen during storage, which is a normal phenomenon and does not affect the catalytic effect.

Package: 25kg/200kg in HDPE drum

Shelf Life: The unopened shelf life is 18 months from the date of manufacture. After shelf life, please do test to make sure the catalytic properties before use.

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