

## Organic Tin Catalyst

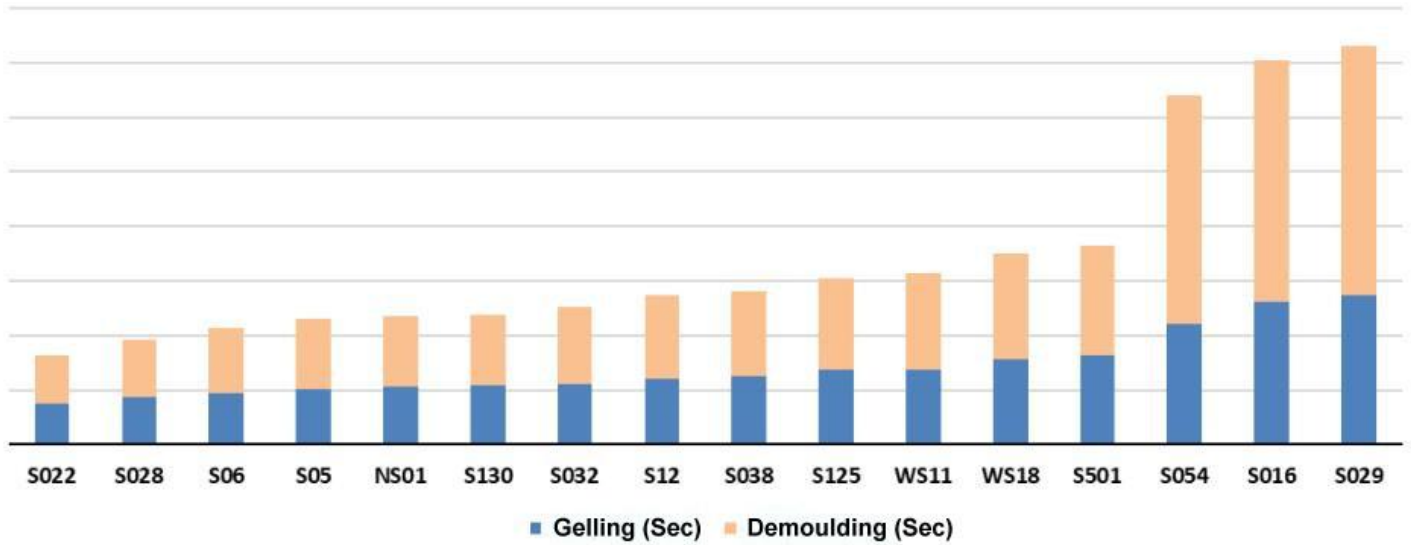
### I. Characteristics of TCAT series special organic tin catalysts:

- **High catalytic activity**, strong activity for the reaction of hydrogen with isocyanates.
- **Sensitive to moisture**, widely used in moisture curing systems, including polyurethane moisture curing, MS adhesive and sealant, etc.
- **widely used in polyurethane foam system as gel catalyst**.
- **High hydrolysis resistance**, with higher stability in aqueous systems than ordinary metal catalysts.
- **Good compatibility with various PU systems**, without affecting the transparency of the system.

### II. Representative Products list:

Type	Model	Hydrolysis Resistance	Characteristics	Application
General Type	TCAT-S12	Middle	Same as DBTDL T12	General purpose
Functional Type	TCAT-S501	Middle-High	Anti-hydrolysis and eco-friendly, in compliance with EU REACH & RoHS.	General purpose
	TCAT-S05	Middle	High activity, better compatibility than DBTDL	General purpose
	TCAT-S06	High	High activity and anti-hydrolysis	General purpose. Recommended for aqueous systems
	TCAT-S016	High	Delayed tin, long pot life and fast post curing, better delay performance than S054.	General purpose. Recommended for processes that require longer pot life.
	TCAT-S022	High	Anti-hydrolysis, higher activity than S06, in compliance with REACH & RoHS	General purpose. Recommended for aqueous systems
	TCAT-S028	Middle	Anti-hydrolysis, higher activity than S05, in compliance with EU REACH & RoHS	General purpose
	TCAT-S029	High	Delayed tin, better delay performance than S016.	General purpose. Recommended for processes that require longer pot life.
	TCAT-S032	High	Mild catalytic activity and higher hydrolysis resistance than S06.	General purpose. Recommended for aqueous systems
	TCAT-S038	Middle-High	Mild catalytic activity and higher hydrolysis resistance than S028.	General purpose
	TCAT-S054	High	Delayed tin. in compliance with EU REACH&RoHS	General purpose. Recommended for processes that require longer pot life.
	TCAT-S125	Middle	Compared with DBTDL, the activity is more stable.	General purpose. Recommended for PU foam as gel catalyst.
	TCAT-NS01	Middle	Chelated tin, high catalytic activity.	MS adhesive and sealant, especially recommended for non-isocyanate modified MS adhesive and sealant.
	TCAT-NS02	Low	Chelated tin, No crystallization and precipitation at low temperature (-20 °C).	
TCAT-S130	Middle-High	High activity, good compatibility, better hydrolysis resistance than chelated tin.	General purpose. especially recommended for MS adhesive and sealant, esterification.	
Innovation Type	TCAT-WS11	Middle	Moisture curing catalyst, low TVOC, meets the strict TVOC standards for plastic tracks.	General purpose. Especially recommended for applications with low TVOC requirements, such as plastic runways and automotive interiors.
	TCAT-WS18	Middle	Reactive type. With mild activity and do not migrate or precipitate in finished products.	General purpose. Especially recommended for applications with low odor and no precipitation requirements.

### III. Comparison of Catalytic Activity:



### IV. Comparison of Anti-hydrolysis Stability:

