



Highly reactive tin-free catalyst
for one- and two-component polyurethane systems and RTV silicones

Description

Borchi® Kat 315 is a highly reactive tin-free catalyst based on bismuth neodecanoate used as accelerator for solventborne or solvent-free one- and two-component polyurethane systems and stoving enamels based on blocked isocyanates. Furthermore **Borchi® Kat 315** can be used in the catalysis of PU foams as well as RTV silicone resins. This catalyst contains no additional organic complexing agents.

Borchi® Kat 315 is an ecologically safe replacement for other polyurethane catalysts, especially for amines and tin-based products like DBTL.

Characteristic data

Appearance:	clear and viscous liquid, honey-brown colored	
Metal content, Bi %:	15.8 – 16.2	MCI 64-69
Non volatile matter, %:	min. 70	ASTM D 1644 B
Density, g/cm ³ :	1.08 – 1.11	ASTM D 1963
Viscosity (Gardner):	P – X	ASTM 1545
Flash point, °C:	> 100 (typical)	
Solubility:	soluble in standard organic coatings solvents, e.g. aliphatic and aromatic hydrocarbons, glycols, ketones and esters	

Properties

Borchi® Kat 315 accelerates the chemical reaction between the polyol and isocyanate components of polyurethane systems, thus allowing optimal control of the curing properties, during both higher temperature and room temperature.

Borchi® Kat 315 ensures fast blocking stability of polyurethane coatings and provides increased film hardness, earlier solvent resistance and allows earlier sanding of the applied coating.

This catalyst can be used as a replacement for tin-based products like dibutyl tin dilaurate (DBTL), in many cases yielding better coating properties than for systems catalyzed by DBTL. In particular, in many systems the use of **Borchi® Kat 315** results in increased film hardness at comparable drying time.

Applications

Borchi® Kat 315 is particularly suitable for solventborne and solvent-free pigmented one- and two-component polyurethane coatings, e.g. for automotive refinish coatings, general industrial coatings as well as coil coatings formulated with blocked isocyanates. In these systems, **Borchi® Kat 315** is characterized by very good activity.

Borchi® Kat 315 can catalyze the condensation reaction in RTV silicone resins and can accelerate the cross linking of these polymers.



Use and Dosage

The recommended addition rate of **Borchi® Kat 315** in polyurethane coatings is according to our experience between 0.01 and 0.03 % product, calculated on solid binder. The exact amount depends on the used binder and should be determined by means of preliminary trials.

The optimal addition rate of **Borchi® Kat 315** in PU foams and RTV silicone resins is depending on the reactive components and should as well be determined by means of preliminary trials.

Borchi® Kat 315 can be added either in the supply form or diluted (e.g. in butyl acetate) to the polyol component of the coating system. **Borchi® Kat 315** should not be diluted below 10% of the supply form, since those solutions are only stable for a limited period of time.

Storage

Protect from the effects of weathering and store at temperatures between 5 and 30 °C.
Once opened, containers should be resealed immediately after each removal of the product.

Safety

Please refer to our safety data sheet for information relating to product safety.

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