

## BYK-SILCLEAN 3701

### Silicone-containing Surface Additive for Epoxy Systems for Long-term Improved Cleanability (Easy-to-Clean Effect)

Epoxy resin systems are typically used for stronger utilized, mainly interior, surfaces, e.g. in tanks, railcars, cargo holds of ships, industrial floorings, etc. The disadvantages of these systems are a lack of UV resistance and a tendency towards chalking. However, the use of epoxy resin systems as top coats using cycloaliphatic hardeners has increased in recent years. Now, such coatings in storage rooms or tanks need to be simple, fast, and inexpensive to clean. In tunnel or container coatings, the product life cycle can be extended, cleaning intervals increased, and service costs lowered.

BYK has developed a silicone-containing surface additive specifically to improve cleanability (easy-to-clean effect). BYK-SILCLEAN 3701 is a liquid product with 100 % active substances. The additive achieves a permanent effect as it reacts in the polymer matrix and as such does not lose its effectiveness over time, like other silicone-based surface additives. At the same time, BYK-SILCLEAN 3701 has no influence on the adhesion of the top coat to the substrate and consequently does not have a negative effect on the anti-corrosion properties.

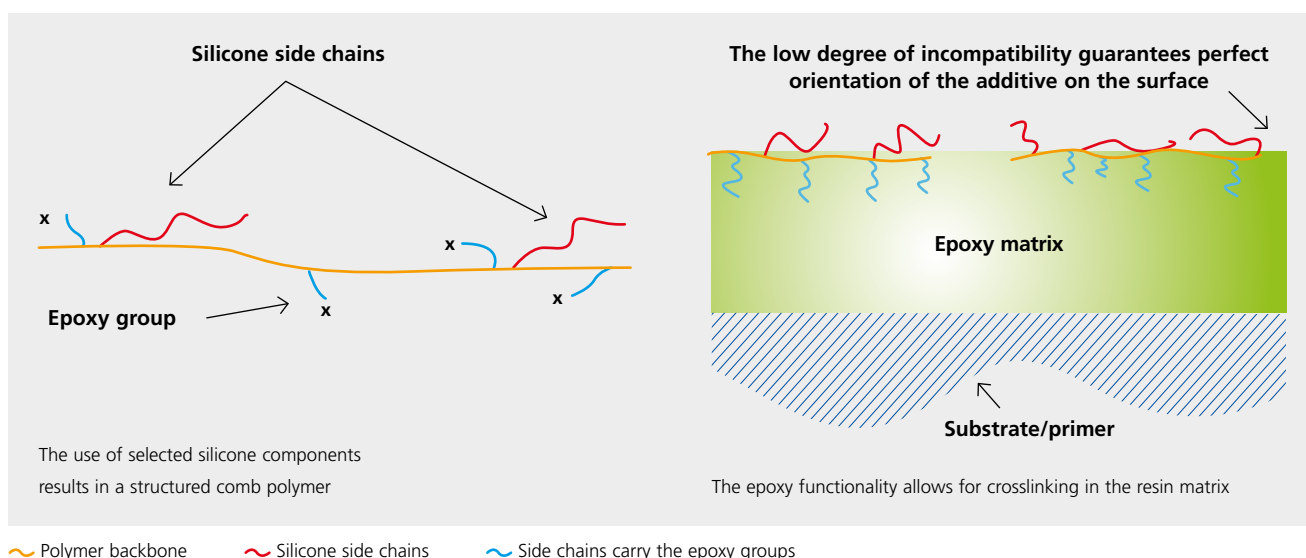
#### Benefits

- Provides easy-to-clean properties in top coats
- Long-term effect over multiple cleaning intervals
- No negative influence on the adhesion to the substrate or primer
- Improved water repellency
- Reduced carbamate formation in aminic hardener systems
- No foam stabilization
- Improved leveling and surface slip
- Better de-icing properties

#### Technical Properties

- Active substance: 100 %
- Epoxide equivalent weight: 1600 g/equivalent
- Density (20 °C): 0.99 g/ml
- Flash point: >100 °C

#### BYK-SILCLEAN 3701 – Schematic Structure and Mode of Action in an Epoxy Resin Matrix



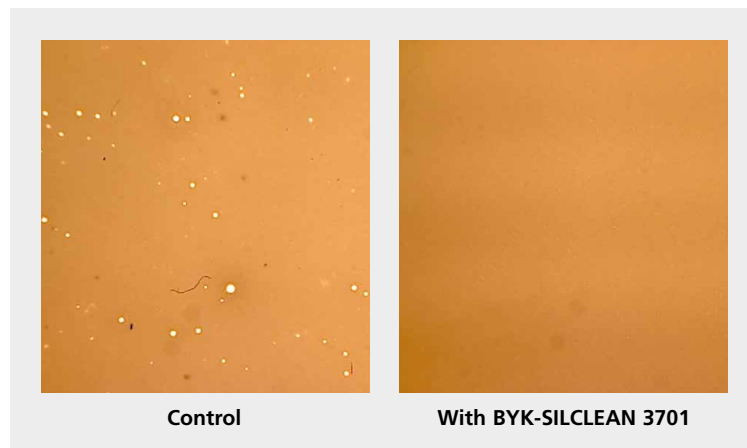
The additive is equally suitable for conventional, high-solid, and solvent-free epoxy resin systems. A further advantage is also the improvement of leveling and surface slip, as well as the lack of foam stabilization.

### BYK-SILCLEAN 3701 – Better Cleanability Regardless of the Contamination



Test system: conventional epoxy resin coating  
Dosage: 1 % additive on total formulation  
Contamination with carbon black

### BYK-SILCLEAN 3701 – Does not Show Foam Stabilization



Test system: conventional epoxy resin coating  
Dosage: 2 % additive on total formulation

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