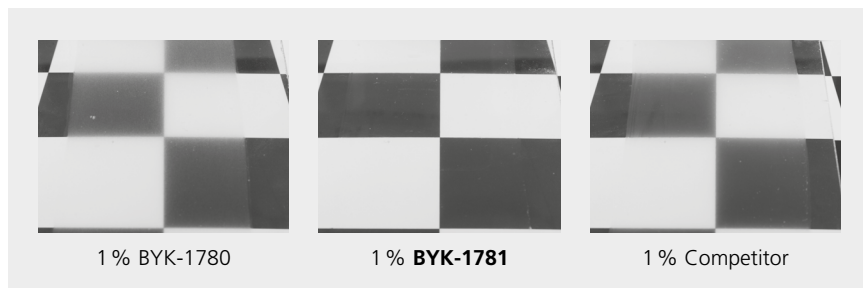


## BYK-1781

### Silicone Defoamer for Aqueous Systems to Eliminate Micro-foam Generated During Application

A well balanced-defoamer, the interaction of compatibility and efficiency is the guarantor for an easy application and a high quality of the final coating. The new BYK-1781 includes all these features. The balanced silicone/polyether ratio leads to an excellent compatibility in a variety of aqueous coating systems e.g. pure acrylics, UV-systems and 2-pack PU-systems without a negative impact on clarity, haze and cratering. In addition the high efficiency of BYK-1781 makes it extremely suitable for difficult application methods such as HVLP, Airless and Airmix to eliminate the micro-foam that occurs in the coating film. The additive can be used in clear coats as well as pigmented systems and is solvent-free.

#### BYK-1781 – Excellent Transparency



Test method: Incorporation: 3 minutes @ 2 m/s

Application: Draw down – 150 µm wet film onto glass panels

Test system: Alberdingk AC 2739, Dosage: 1.0 % as supplied on total formulation by post addition

#### Benefits



- Excellent defoaming in several systems, e.g.
  - Pure acrylics
  - Aqueous UV systems
  - Aqueous 2-pack PU-systems
- High transparency and clarity in clear coats
- No or low influence on haze and cratering
- Excellent for various applications in particular
  - HVLP
  - Airless
  - Airmix

#### Applications



- Architectural coatings
- Wood & furniture coatings
- General industrial coatings
- Protective coatings

#### Product Properties



- Active substance: 100 %
- Density (20 °C): 1.00 g/ml
- Flash point: approx. 87 °C
- VOC-content: < 1.500 ppm
- SVOC: 1.5–5.0 g/l

## BYK-1781 – Excellent Defoaming Action



Test method:

Incorporation: 3 minutes @ 4 m/s

Evaluation:

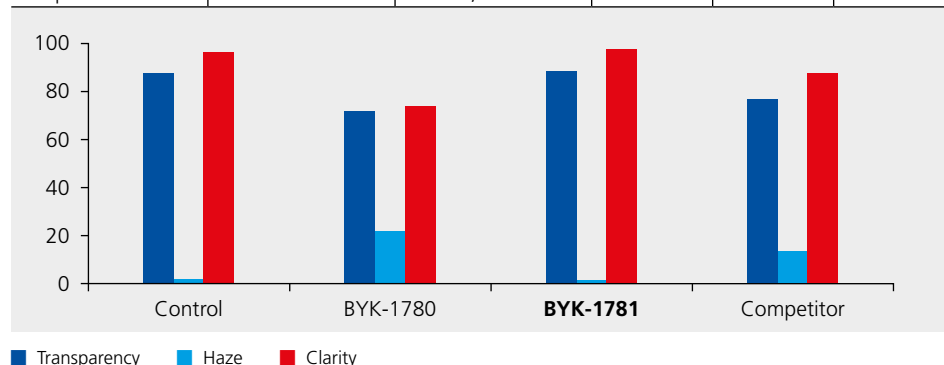
60 minutes @ 9 m/s immediately  
pour-out on PE foil

Test system: Pigmented aqueous UV  
system (customer system)

Dosage: 1.0 % (as supplied) based upon  
total formulation by post addition

## BYK-1781 – Excellent Defoaming Action & Transparency

Sample	Foam	Remarks	Clarity Port on Glass		
			T	H	C
Control	5	Foamy, clear	87.80	2.01	96.90
BYK-1780	2–3	Uneven, hazy	72.10	22.10	73.90
<b>BYK-1781</b>	<b>2</b>	<b>Clear</b>	<b>88.70</b>	<b>1.42</b>	<b>98.30</b>
Competitor	2	Uneven, clear	77.30	13.40	88.30



Test method:

Incorporation: 3 minutes @ 2 m/s

Application: Draw down – 150 µm wet  
film onto glass panels; sprayed by Graco  
airless spray equipment onto Plexiglas  
panels, Nozzle size: 11/1000 inch,  
Pressure: 110 bar,

Wet film thickness: ~175 µm

Test system: Alberdingk AC 2739

Dosage: 1.0 % (as supplied) based upon  
total formulation by post addition

### Evaluation

**1 = excellent, no foam**

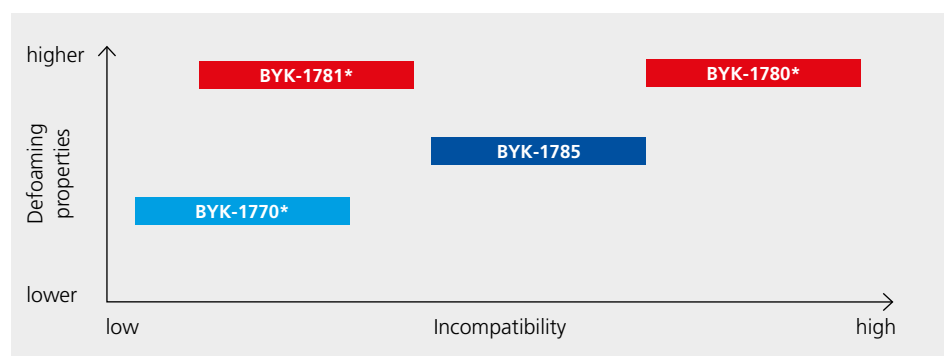
**5 = unacceptable, severe foam**

**T = transparency: the higher, the better**

**H = haze: the lower, the better**

**C = clarity: the higher, the better**

## Defoamer Selection to Remove Process Related Micro-foam



\*100 % solids content

■ Silicone defoamer with hydrophobic  
particles

■ Silicone emulsion defoamer with  
hydrophobic particles

■ Silicone defoamer without particles

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