



BYK®-051
BYK®-052
BYK®-053

BYK®-055
BYK®-057

Silicone-Free Defoamers for Solvent-Based and Solvent-Free Systems

Composition

BYK-051/-052/-053/
-055/-057 Solutions of foam destroying polymers, silicone-free

Typical Physical Data

	Density at 20°C in g/ml	Non-volatile matter in %	Flash point in °C	Solvents
BYK-051	0,82	20	34	White spirit/glycolic acid butylester/butylglycol 71/8/1
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BYK-055	0,88	7	45	Alkylbenzene/methoxypropylacetate 12/1
BYK-057	0,89	44	46	Alkylbenzene/methoxypropylacetate 8/1
Values indicated in this data sheet describe typical properties and do not constitute specification limits.				

Recommended Amounts

	% additive (as supplied) based upon:	
	Total formulation	
BYK-051/-052/-053	0,05 – 0,5	
BYK-055/-057	0,1 – 1,5	

Incorporation Methods and Processing Instructions

To achieve full effectiveness, the defoamers should be added prior to the grinding process. If added during a later stage, the available shear forces must be high enough to ensure good distribution of the defoamers in order to prevent cratering.

Application Fields

	Industrial coatings	Automotive coatings	Protective coatings	Architectural coatings	Wood and furniture coatings	Can/coil coatings
BYK-051	●	●	○	●	●	○
BYK-052	●	●	○	●	●	○
BYK-053	●	●	○	●	●	○
BYK-055	○		●		●	●
BYK-057	●		●	○	●	●
	● recommended			○ suitable		

Special Properties and Advantages

BYK-051 BYK-051 is the most compatible defoamer in the BYK-051/052/053 family. It exhibits optimal efficiency in polar systems; in non-polar systems the defoaming is less pronounced. Due to its excellent compatibility it will not reduce transparency in clears; and even in sensitive formulations, it will not create craters.

BYK-052 BYK-052 is more incompatible than **BYK-051** and is therefore used as the standard defoamer for many solvent-based coatings. It displays higher defoaming action than **BYK-051**, especially in non-polar systems. Due to its stronger incompatibility, the influence upon the transparency of clear systems and upon cratering must be evaluated.

BYK-053 BYK-053 is the product with the highest incompatibility in this group of BYK-051/052/053 and therefore demonstrates the best defoaming performance in polar as well as in non-polar systems. BYK-053 features a fast and spontaneous foam destroying action even at low dosages. Possible reduction of the transparency in clear systems along with the additive's effect upon cratering must be evaluated.

BYK-055 BYK-055 is especially suitable for wood and furniture coatings based on glossy polyesters, paraffin-polyesters and UV-curing polyesters. Even at thin application parameters with curtain coaters, curtain stability is provided. Used in non-pigmented wood coatings, a slight turbidity over dark wood could occur. Good results can also be achieved in epoxies.

BYK-057 BYK-057 is designed for use in unsaturated polyesters, acrylic/vinylacetate-combinations and oil-free polyesters. Additionally, BYK-057 acts as an air release and leveling additive.



Anti-Terra®, BYK®, BYK-Dynwet®, Bykanol®, Byketol®, Bykoplast®, Bykumen®, Disperbyk®, Disperplast®, Lactimon®, BYK-Silclean®, and Viscobyk® are registered trademarks of BYK-Chemie.

This information is given to the best of our knowledge. Because of the multitude of formulations, production and application conditions, all the above mentioned statements have to be adjusted to the circumstances of the processor. No liabilities, including those for patent rights, can be derived from this fact for individual cases.

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BYK-Chemie GmbH, Postfach 100245, 46462 Wesel, Germany
Tel. +49 (0) 281 670-0, Fax +49 (0) 281 65735, info@byk.com, www.byk-chemie.com