

Substance for Success.



Product Guide CM-PG 1

Additives for Sheet Molding Compounds (SMC)

Wetting and Dispersing Additives

Incorporation of fillers increases paste viscosity.
BYK wetting and dispersing additives facilitate the incorporation of fillers and lower paste viscosity.

As a result, higher filler loading is possible.
Lower viscosity improves and speeds up the wetting of the glass fibers.

The Wetting and Dispersing Process

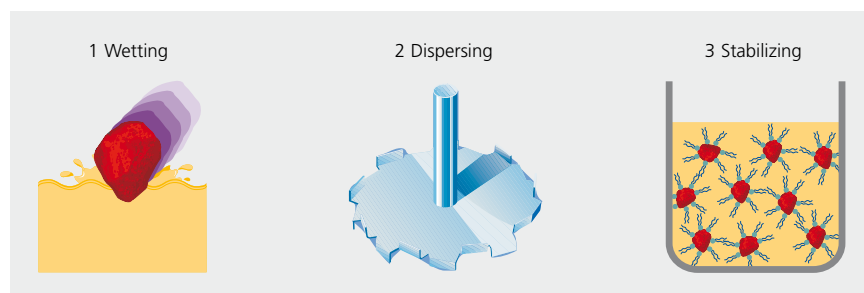
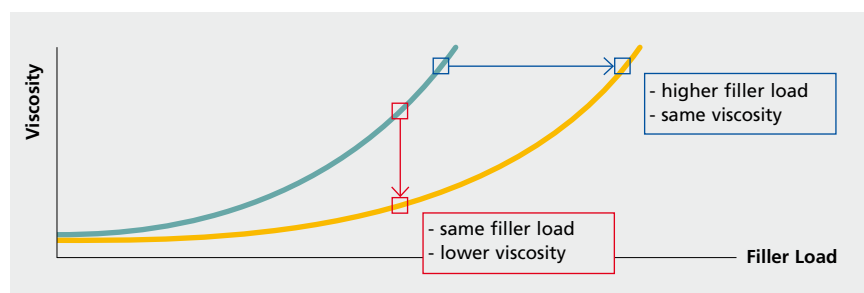


figure 1

Lower Viscosity, Higher Filler Load



■ without additive ■ with additive

figure 2

Application Fields and Dosages

	Low emission	LP Class A	LP	LS	HMC	Fire retardant
BYK-W 980					1-2%	
BYK-W 995				1-2%		1-2%
BYK-W 996		1-2%	1-2%	1-2%	0.5%	1-2%
BYK-W 9010	0.5-1%	0.5-1%	0.5-1%	0.5-1%	0.3%	0.5-1%
BYK-W 9011	0.5-1%	0.5-1%	0.5-1%	0.5-1%	0.3%	0.5-1%

% based on filler

figure 3

Processing Additives

To improve pigmentability in LS-formulations, processing additives are used. Due to their excellent release properties, they replace the stearates completely.

Processing Additives

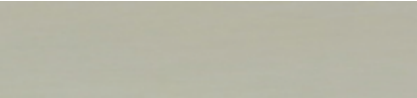
	LS	LP Class A	LP
BYK-P 9060	3-4 phr		
BYK-P 9065	2-2.5 phr		
BYK-P 9080		4-5 phr	4-5 phr

figure 4

Pigmentation



Without processing additive



With BYK-P 9060 or BYK-P 9065

figure 5

Processing Additives Drastically Improve Surface Appearance



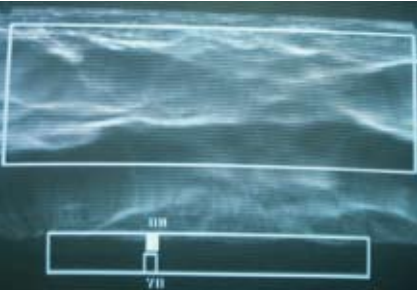
Electrical cabinet formulation
without additive



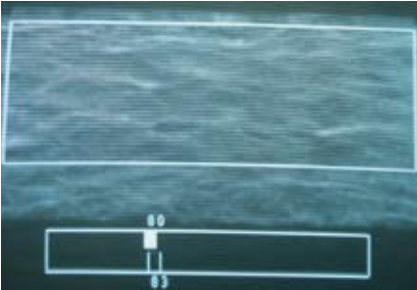
Electrical cabinet formulation
with processing additive

figure 6

BYK-P 9080 Drastically Reduces Long-Term Waviness



Without additive



With BYK-P 9080

figure 7

BYK-P 9065 – The Concept of a Multifunctional Processing Additive

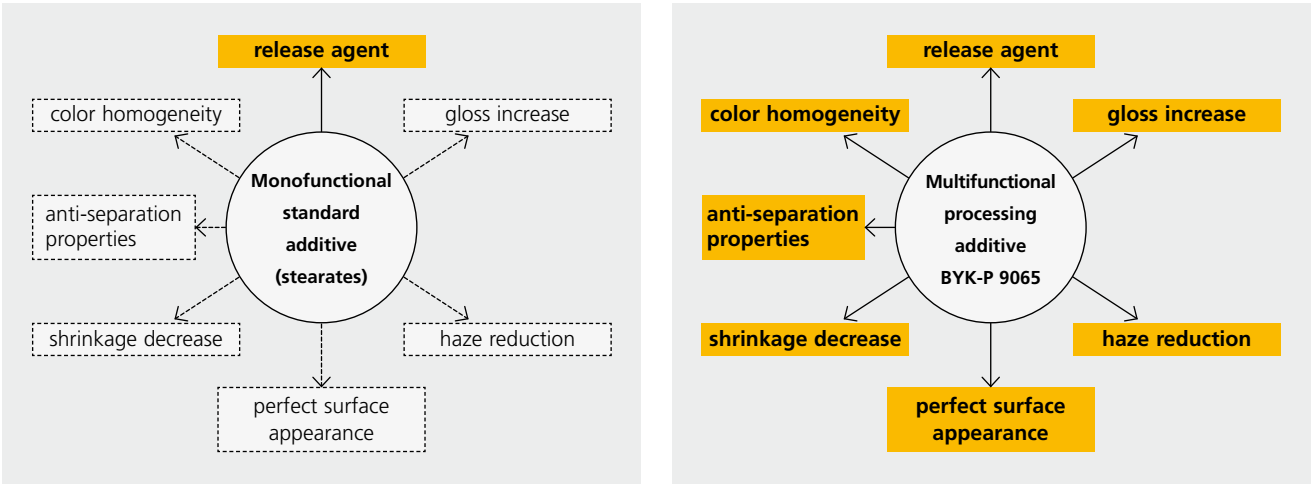


figure 8

BYK-P 9065 – Significantly Improved Surface Quality of Molded Parts

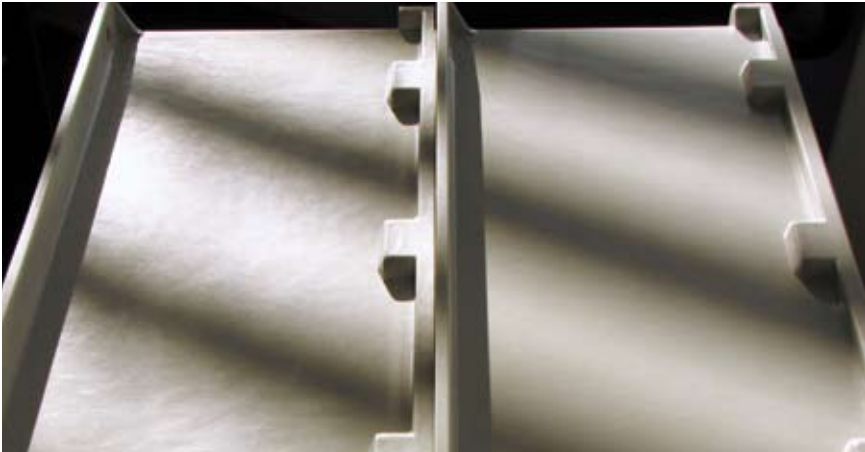


figure 9

Anti-Separation Additives

Shrinkage control additives such as PS or SBS are incompatible with the UP resin and can cause phase separation in the paste.

The use of BYK additives helps to compatibilize both phases and stabilize the paste during storage and processing.

Anti-Separation Additives

	LS
BYK-9076	0.3-1 phr
BYK-W 972	0.5-1 phr
BYK-W 974	0.3-1 phr

figure 10

UP & LS-Resin with Filler and Pigment



figure 11

Fiber Wetting

Application Fields and Dosages

	Glass fibers	Carbon fibers
BYK-9076	1%	1%
BYK-515	1%	
BYK-A 560	1%	
BYK-W 972	1%	

% based on fiber content

figure 12

Products and Applications

BYK Additives

Product Range Additives:

- Additives to improve surface slip, leveling and substrate wetting
- Adhesion promoters
- Defoamers and air release agents
- Foam stabilizers
- Processing additives
- Rheological additives
- UV-absorbers
- Viscosity depressants
- Waxes
- Wetting and dispersing additives for pigments and extenders

BYK-Chemie GmbH

P.O. Box 10 02 45
46462 Wesel
Germany
Tel +49 281 670-0
Fax +49 281 65735

info@byk.com

www.byk.com/additives

Application Areas:

Coatings Industry

- Architectural Coatings
- Automotive Coatings
- Industrial Coatings
- Can Coatings
- Coil Coatings
- Wood & Furniture Coatings
- Powder Coatings
- Leather Finishes
- Protective & Marine Coatings

Plastics Industry

- Ambient Curing Systems
- PVC Plastics
- SMC/BMC
- Thermoplastics

PUR Industry

- C.A.S.E. Applications
- PUR Foams

Printing Ink Industry

- Flexo Inks
- Gravure Inks
- Silk Screen Inks
- Offset Inks
- Overprint Varnishes

Paper Coatings

- Impregnation
- Coatings

Adhesives & Sealants

Construction Chemicals

Pigment Concentrates

Raw Materials for Manufacturing of Release Agents

BYK Instruments

BYK offers a complete line of testing instruments to meet your needs in many application areas:

- Gloss/Appearance
- Color

Portable or stationary laboratory equipment – including easy-to-use quality control software.

BYK instruments – the complete solution for the coatings and plastics industry.

BYK-Gardner GmbH

P.O. Box 970
82534 Geretsried
Germany
Tel +49 8171 3493-0
+49 800 427-3637
Fax +49 8171 3493-140

info.byk.gardner@altana.com

www.byk.com/instruments

ANTI-TERRA®, ATEPAS®, BYK®, BYK®-DYNWET®, BYK®-SILCLEAN®, BYKANOL®, BYKETOL®, BYKOPLAST®, BYKUMEN®, DISPERBYK®, DISPERPLAST®, ISAROL®, LACTIMON®, NANOBYK®, SILBYK® and VISCOBYK® are registered trademarks of BYK-Chemie. AQUACER®, AQUAMAT®, AQUATIX®, CERACOL®, CERAFAX®, CERAFLOUR®, CERAMAT®, CERATIX® and MINERPOL® are registered trademarks of BYK-Cera. LICOMER® is a registered trademark of Clariant.

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. This issue replaces all previous versions – printed in Germany.