

## Press Release

### **BYK®-P 4102 – polymeric processing additive for pigments and fillers in thermoplastic systems**

**Wesel, Germany, May 20, 2009** – Over the years, requirements for color masterbatches have increased continually.

Despite improved extrusion technology, the dispersion of organic pigments often presents a challenge. The use of a suitable dispersing agent has thus become practically indispensable.

However, waxes and fatty acid derivatives now in use generally produce unsatisfactory results in terms of pigment dispersion and stabilization.

BYK®-P 4102, by contrast, is a highly efficient polymeric processing additive which:

- improves pigment / filler dispersion
- increases the correlation between lab and production color matching
- optimizes throughput due to lower filter pressure value
- positively influences viscosity behavior (MVR)
- has a broad application spectrum

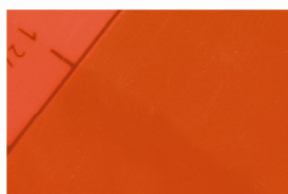
The additive works in two steps: In the first step, one of the additive's building blocks provides a low melting temperature and viscosity, resulting in excellent wetting of pigments and fillers. BYK®-P 4102 adsorbs on the pigment or filler surface, thus ensuring improved and more consistent dispersion. In the final product, the film shows a higher transparency and homogeneity. In the second step, another ingredient in the additive enables a better processability in the extrusion process. The melting viscosity of the masterbatch or compound is reduced and due to the lower filter pressure value the throughput of the material is higher.

BYK®-P 4102 is suitable for use in a variety of thermoplastic compounds and masterbatches based on PE, PP, ABS, PA and PVC.

#### BYK-P 4102 – Improved Dispersion of the Pigment Leads to Better Clarity in Film Applications



Micronized PE Wax



BYK-P 4102

Performance in LDPE Cast-Film  
with Masterbatch of PR  
53:1 with 40 % Pigment Load

Picture shows 2 % Masterbatch in  
LDPE Cast-Film

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### **About BYK Additives & Instruments:**

BYK Additives & Instruments is one of the world's leading suppliers in the additives and instruments sector. Approximately 85% of our sales are generated by foreign countries. Our major export markets are Europe, the United States and the Far East.

Additives are used by processing industries in the production of coatings, inks, plastics and papers. In very small quantities, BYK additives simplify manufacturing processes, and significantly improve the quality of finished goods, such as motor vehicles and furniture.

BYK Instruments can quantify the quality of color and gloss and the physical properties of paint, plastic and paper products. Instruments from BYK are predominantly used for quality control.

BYK Additives & Instruments is a member of ALTANA, Wesel. ALTANA develops and produces high-quality, innovative products in the sector of specialty chemicals.

BYK Additives & Instruments employs around 1,200 people worldwide, 25% of whom work in research and development departments or technical laboratories.

**This press release is also available on the internet at: [www.byk.com/press\\_releases](http://www.byk.com/press_releases).**

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