

PRESS RELEASE

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K 2022 Internationale Trade Fair for Plastics and Rubber

WACKER Presents New Silicone-Based Additive for Polyethylene Molding Compounds at K 2022

Munich, August 24, 2022 – Munich-based chemical group WACKER will introduce an additive masterbatch for polyethylene compounding at the 22nd International Trade Fair for Plastics and Rubber. Marketed as GENIOPLAST® PE50S08, this silicone product makes it easier to manufacture ready-to-use polyethylene molding compounds. It also improves the surface properties of the resulting plastic products. The polyethylene masterbatch can, for instance, be used for extruding films or for improved processing of recycled polyethylene compounds. K 2022 will take place in Düsseldorf, Germany, from October 19 to 26.

With GENIOPLAST® PE50S08, WACKER is adding a product developed specifically for use in polyethylene molding compounds to its portfolio of silicone-based compounding additives. The additive masterbatch in pellet form is an active component that contains a non-reactive, ultra-high-molecular polydimethylsiloxane. The active ingredient's carrier is a low-density polyethylene. The silicone content of the masterbatch is 50 percent.

GENIOPLAST® PE50S08 is used as a highly effective processing aid. Its silicone active ingredient improves filler distribution in filled formulations and the flow properties of the polymer melt. This increases extruder throughput. It also reduces the energy needed for compounding – a clear advantage for compounders.

Where mixtures of different polyethylene grades are compounded, as is the case in the processing of recycled polyethylene, GENIOPLAST® PE50S08 ensures uniform mixing without any major torque or temperature fluctuations. Thus, polyethylene recycling is one of the new additive's key application areas.

All the process-enhancing properties also come into play when the compound is molded. In blown film extrusion, manufacturers of polyethylene film formulations can substantially boost productivity. In the extrusion of cable sheathing, hoses or profiles made of filled polyethylene, there are fewer die deposits.

Furthermore, GENIOPLAST® PE50S08 improves the surface structure of polyethylene products. The additive reduces the coefficient of kinematic and dynamic friction of the plastic formulation, giving it a surface that feels silky and dry. As a result of the reduced surface friction, the products feature higher scratch and abrasion resistance. This makes it easier to unroll films. The additive also improves the plastic's impact strength in the final product.

Generally, the dosage of GENIOPLAST® PE50S08 is 1 to 3 percent. The product is easy to feed with a standard system and is readily

incorporated into polyethylene mixtures on a twin-screw extruder even when mineral fillers are added.

Other Compounding Additives at K 2022

At the trade fair, WACKER will also be showcasing several other additives for thermoplastic compounding:

- ▶ **GENIOPLAST® Pellet S:** this additive is universally suitable for compounding all thermoplastics. As active component, it contains a non-crosslinked ultra-high-molecular silicone polymer mounted on pyrogenic silica. Its main application area is flame-resistant cable sheathing.
- ▶ **GENIOPLAST® PP50S12:** this silicone-additive masterbatch improves the scratch resistance of polypropylene products. Its most important applications are packaging films, garden furniture and components for car interiors.
- ▶ **GENIOPLAST® Pellet 345:** this silicone-based additive for thermoplastic polyurethanes imparts a pleasant feel to smart-phone covers, wearable armbands and other items made of these plastics. It also increases dirt resistance.

Visit WACKER at K 2022 in Hall 6, Booth A10.



WACKER will present a new silicone-based additive masterbatch for compounding polyethylene at K 2022. GENIOPLAST® PE50S08 facilitates the manufacture of ready-to-use polyethylene molding compounds and improves the surface properties of the resulting plastic products. (photo: WACKER)

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The company in brief:

WACKER is a globally active chemical company with some 14,400 employees and annual sales of around €6.21 billion (2021). WACKER has a global network of 27 production sites, 23 technical competence centers and 52 sales offices.

WACKER SILICONES

Silicone fluids, emulsions, rubber grades and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

WACKER POLYMERS

Polyvinyl acetates and vinyl acetate copolymers and terpolymers in the form of dispersible polymer powders, dispersions, solid resins and solutions

WACKER BIOSOLUTIONS

Biotech products such as cyclodextrins, cysteine and biologics, as well as fine chemicals and PVAc solid resins

WACKER POLYSILICON

Polysilicon for the semiconductor and photovoltaic industries