

WACKER

CREATING TOMORROW'S SOLUTIONS



GENIOPLAST®

PLASTICS | PERFORMANCE ADDITIVES

PEP UP
YOUR POLYOLEFIN COMPOUNDS



GENIOPLAST® additives are suitable for a wide range of applications. Our specialty grade GENIOPLAST® Pellet P Plus has been developed for food packaging, caps and closures.

GENIOPLAST® PELLET S AND PELLET P PLUS

This unique combination of high-viscosity silicone gum and a specially modified silica provides optimum efficiency together with universal compatibility in thermoplastics. GENIOPLAST® Pellet S and Pellet P Plus provide unique processing benefits and improve surface quality. In contrast to many other additives, GENIOPLAST® Pellet S and Pellet P Plus do not negatively affect physical properties, such as tensile and impact strength. In mineral-filled compounds, GENIOPLAST® Pellet S and Pellet P Plus actually enhance impact strength and provide a synergistic effect with flame-retardant additives.

Two Grades for All Your Needs

GENIOPLAST® Pellet S provides solutions for technical applications. In addition, GENIOPLAST® Pellet P Plus is suitable for food-contact applications.

GENIOPLAST® Pellet S and Pellet P Plus Enhance Productivity

Addition of 0.1 – 1%	Addition of 1 – 5%
Improves the processing and flow for the compounder and the downstream processor	Improves the surface properties of parts
Reduces extruder torque and die pressure	Improves smoothness and gloss
Significantly increases throughput	Reduces coefficient of friction
Reduces deposits	Increases scratch and abrasion resistance
	Improves physical properties of compounded parts

GENIOPLAST® is a registered trademark of Wacker Chemie AG.



UPGRADE THE PERFORMANCE OF POLYOLEFIN COMPOUNDS

Technical polyolefin compounds are extremely versatile and are increasingly used in areas such as cables, appliances, consumer electronics and packaging. GENIOPLAST® Pellet S and Pellet P Plus make a contribution in all of these applications.

GENIOPLAST® Pellet S in Cable Compounds

Today, new and better cable compounds for data transmission, telecommunication and low-voltage cables are being developed on the basis of polyethylene (PE) or ethylene copolymers. These compounds are rendered flame retardant by means of halogen-free flame-retardant fillers, such as aluminum hydroxide (ATH). In halogen-free flame-retardant cable compounds (HFFR), GENIOPLAST® Pellet S significantly improves processing, flow, surface, and mechanical properties as shown in the following diagrams. Furthermore, deposits on the die and in the extruder itself are reduced and flame retardant properties are synergistically improved.

GENIOPLAST® Pellet S in ACP

Composite panels made of aluminum (ACP) contain a core made of a thermoplastic such as polyethylene or polypropylene to which fire-retardant filler such as aluminum or magnesium hydroxide has been added. In such highly filled compounds, GENIOPLAST® Pellet S simplifies processing, even at dosages of less than 1%. In addition, raising the concentration to 1% to 3% improves surface properties and fire resistance.

A Wealth of Potential Applications

The use of GENIOPLAST® Pellet S and Pellet P Plus in polyolefin compounds is not limited to cables and appliances. The combination of benefits that GENIOPLAST® imparts to polyolefin compounds as a performance additive also improves compounds for other technical applications, such as for piping, extruded film and sheeting, as well as highly mineral-filled compounds. Likewise, FDA-compliant GENIOPLAST® Pellet P Plus enhances compounds for flexible and rigid food packaging, caps and closures.



Additives

- GENIOPLAST® Pellet S
- GENIOPLAST® Pellet P Plus (food compliant)



Dosage

1 – 5%



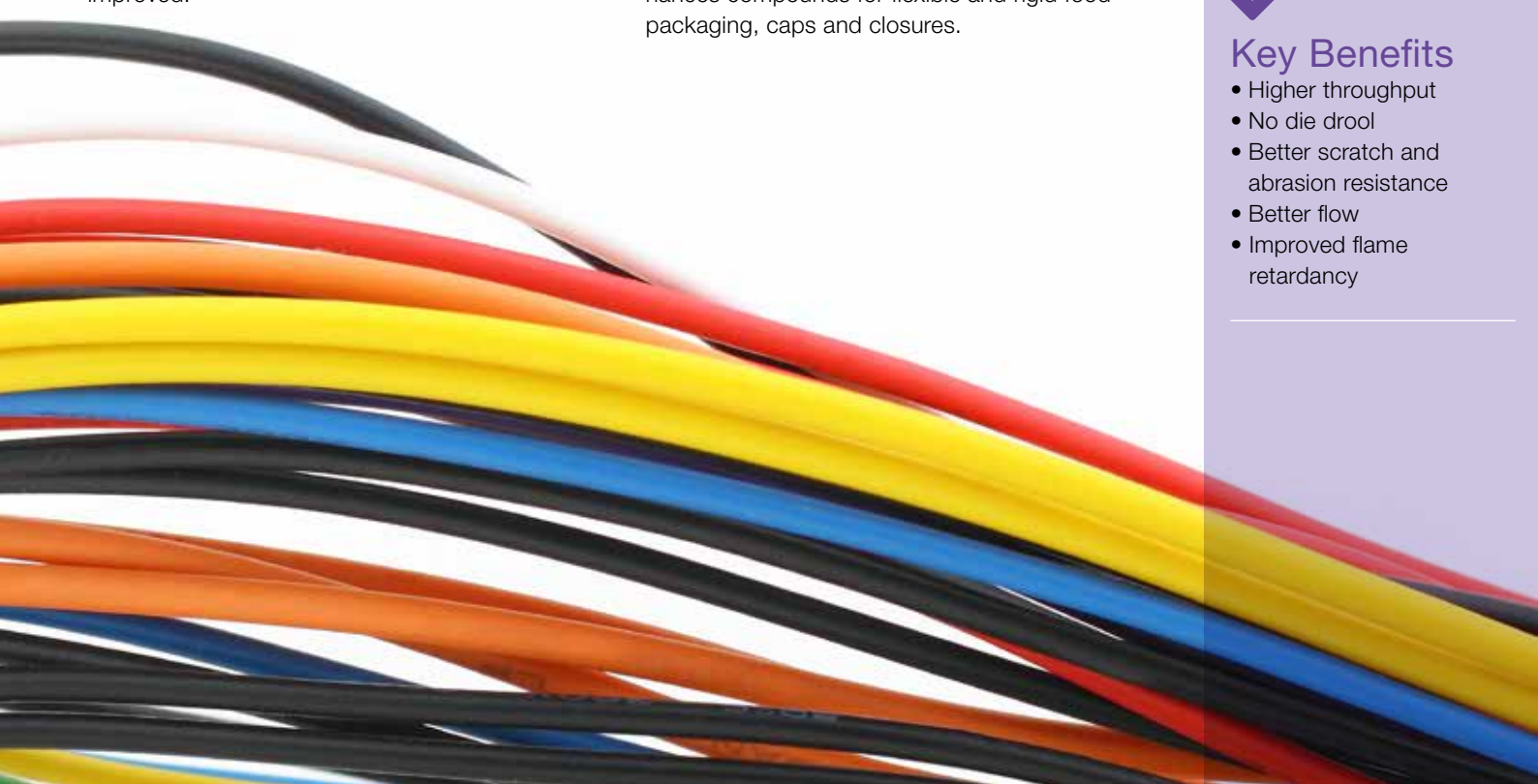
Applications

- Cables
- Appliances
- Consumer electronics
- Food packaging, caps and closures

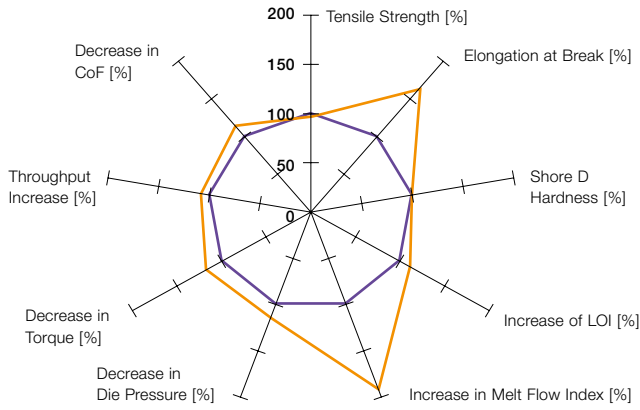


Key Benefits

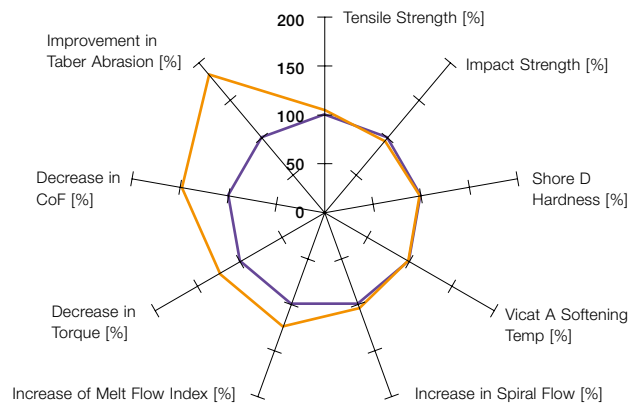
- Higher throughput
- No die drool
- Better scratch and abrasion resistance
- Better flow
- Improved flame retardancy



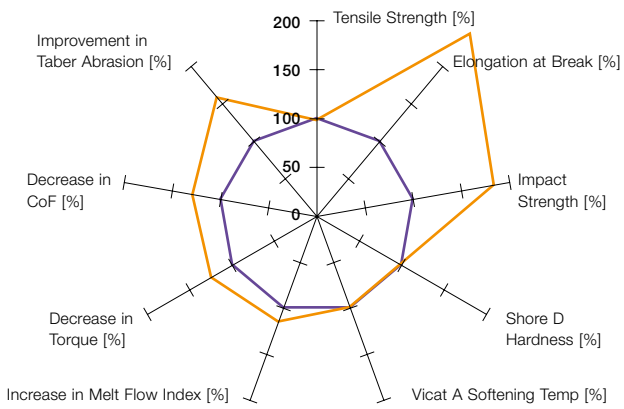
EVA/ATH (70%)



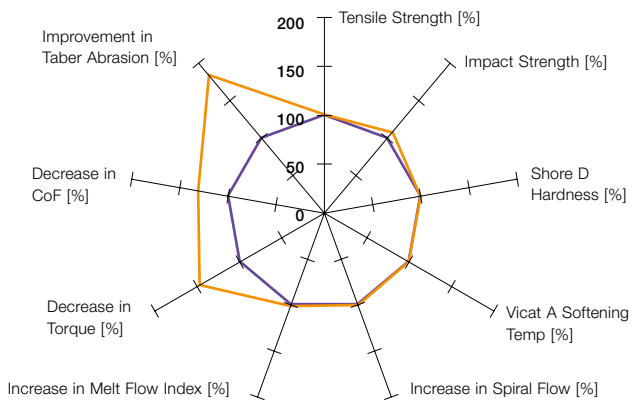
HDPE



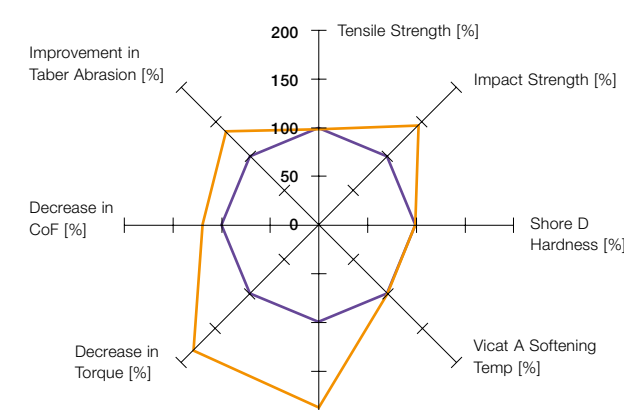
HDPE/CaCO₃ (40%)



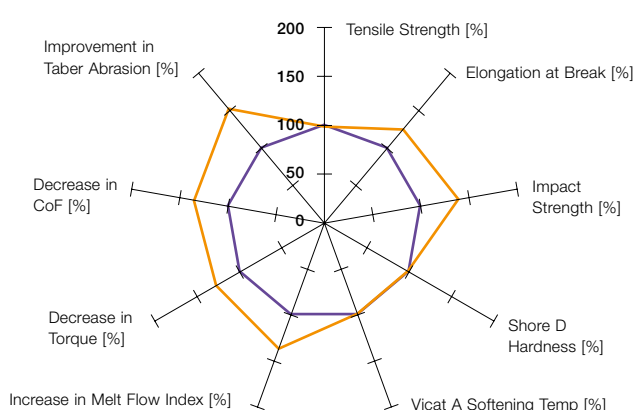
PP



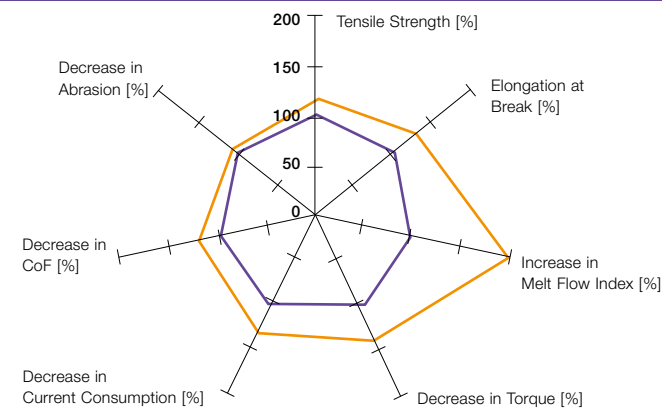
PP/CaCO₃ (40%)



LDPE/ATH (60%)



TPO/BaSO₄ (80%)



■ Base polymer
 ■ +1.0% GENIOPLAST® Pellet S



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