

## COMPOUNDS WITH IMPROVED SLIDING AND WEAR BEHAVIOR

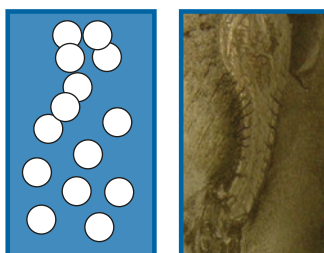
Choosing the optimum polymer can offer advantages in many technical parts. Traditional materials for example metal can be replaced by tailor-made thermoplastics to reduce weight and create unlimited design possibilities.

Optimizing polymers regarding their tribological properties is mainly done to reduce the coefficient of friction. This modification can reduce rubbing noise, minimize wear and improve ease of use.

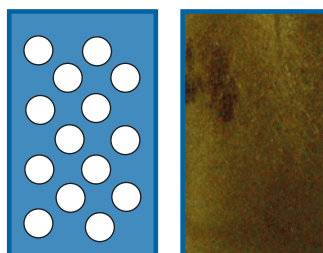
In addition to all these benefits of tribology optimized polymers SITRAPLAS products with slip additives also offer excellent self-lubrication. Additional production costs for greasing can be eliminated and a lifetime lubrication can be nearly guaranteed.



COMPOUNDING PROCESS



PC + 10% PTFE



SITRALON® HK + 10% PTFE

## SLIP ADDITIVES

Combination of both components with improved performance

### **PTFE 5% – 20%**

- > reduced coefficient of friction through buildup of a lubricating film
- > running in time is needed
- > lifelong lubrication

### **Siloxanes – Polydimethylsiloxanes 1% – 3%**

- > reduced coefficient of friction through migration of additive on the surface of the product
- > instant lubrication

### **Molybdenum Sulphide (MoS<sub>2</sub>) 1% – 5%**

- > forms hard and abrasion resistant surface (e.g. PA against metal)
- > reduction of stick slipping
- > lifelong lubrication
- > electric conductive

### **Graphite 5% – 15%**

- > boundary layer lubrication, main use in humid or liquid environment
- > electric conductive

SITRAPLAS has a reputation of expertise in process engineering and the manufacturing of custom formulations. The company has become a reliable supplying partner for a wide range of modified engineering resins. Depending on your requirements and the end uses we can assist you in selecting a suitable product. If necessary, our engineers will also support you in your production using our material.

**Please contact us for a personal consultation.**

## FILLERS AND REINFORCING MATERIALS

### **Aramid 5% – 20%**

- > good wear resistance with little wear of the friction partner

### **Glass fibers 5% – 30%**

- > improved mechanical properties
- > increase of coefficient of friction
- > reduced wear
- > high wear of friction partner including steel

### **Carbon fibers 5% – 30%**

- > good mechanical and thermal stability
- > reduced wear
- > electric conductive