# HEROLUB™ FMA

## FLUORINATED MICRO-POWDER ADDITIVES

HEROFLON™
TECHNICAL FLUORINATED POLYMERS

**Heroflon** produces special **PTFE micro-powders** with **different particle size used in various market fields** like additives for thermoplastics, coatings, printing inks and lubricants. **Herolub** products are added into various matrix materials to **reduce surface friction and wear**. In thermoplastic compounds they reduce or avoid the need for **lubrication** of the finished components, both injection molded or extruded. Extrusion rate and quality can be improved increasing out-put rate, avoiding marking or surface defects and sagging, to improve scratch and chemical resistance and minimize water uptake. They can replace Graphite and Molybdenum Disulphide ($MoS_2$), thus avoiding soiling additives. They are **easily mixed** on-site because they do not lump or agglomerate. In **Flame Retardant** formulations they can avoid dripping even at very low percentages to fulfil **UL94 V-0** requirements.

## MAIN PROPERTIES OF PTFE

- Achieves or improved self-lubrication
- Reduction of the coefficient friction and abrasion
- Improved resistance to chemical agents
- Excellent dielectric properties
- Non-stick behaviour
- Resistance to high temperatures
- Does not change the colour of the polymer blend

## APPLICATIONS

- Thermoplastics, Thermosetting and Elastomers
- Lubricants
- Printing Inks
- Coating & Waxes

## TWO MAIN HEROLUB FAMILIES

### GRANULAR

Suspension Polymerization

### FINE POWDERS or PASTE

Emulsion Polymerization

The choice between these two types of Herolub micro-powder must be made considering the most important requirements of the final application:

- The type of the host resin system
- Mechanical and Tribological properties
- Flowability
- Thickening effect
- Wall thickness
- Optical requisites
- Food contact compliancy
- Flame retardant ratings
- Viscosity

For more information, visit our website: **www.heroflon.com**

**By means of the unique and outstanding characteristics of PTFE, Herolub PTFE micro-powders are used as additive in order to transfer one or more of their properties into the final polymeric and resin systems.**

# MAIN BENEFITS

## THERMOPLASTICS, THERMOSETTING AND ELASTOMERS

- Self-lubrication effect
- Higher wear resistance
- Anti-friction performances
- Anti-blocking effect
- Non-stick slip behavior
- Noise reduction
- Increased PV limit
- Extended service life
- Improved chemical and UV resistance
- Improved processing speed and easiest machinability
- Cleaner alternative to Graphite or $Mos_2$
- Food contact compliancy
- Anti-dripping (UL94 V-0)

## LUBRICANTS

- Self-lubrication effect
- Thickener
- High load resistance
- Extreme pressure resistance
- Non-stick slip behavior
- Anti-friction properties
- Anti-wear performances
- Small particles and high surface area
- Low impact on viscosity
- Chemicals and corrosion resistance
- Cleaner alternative to Graphite or $Mos_2$

## PRINTING INKS

- Higher scratch and rub resistance
- Increased surface lubricity
- Non-stick and slip properties
- Gloss and clarity control
- Anti-skinning performances
- Increased heat resistance
- Better chemical resistance
- Over-printability
- Water pick-up control

## COATING AND WAXES

- Mar and scratch resistance
- Improved abrasion resistance
- Surface finishing effects control
- Anti-blocking effect
- Improved moisture repellency
- Higher processing speed
- Improved weather ability and durability
- Excellent uniform texture and uniform surface

| PRODUCTS | THERMOPLASTICS, THERMOSETTING AND ELASTOMERS | | LUBRICANTS | PRINTING INKS | COATING AND WAXES |
|---|---|---|---|---|---|
| Herolub 1 | | | | + | |
| Herolub 3 | | | + | + | + |
| Herolub 5 | + | | | + | + |
| Herolub 5F | + | F | | + | |
| Herolub 10 | + | | | | |
| Herolub 10 F | + | F | | | |
| Herolub 15 | + | | | + | + |
| Herolub 15 F | + | F | | | |
| Herolub 15 LR | + | | | | |
| Herolub 20 F | + | F | | | |
| Herolub 30 | + | | | | + |
| Herolub 30 GR | + | | | | |
| Herolub P | + | AD | | | |
| Herolub C | + | AD | | | |
| Herolub C-FF | + | AD | | | |
| Herolub P5 | + | | + | + | + |
| Herolub P8 | + | | + | | |
| Suggested Quantity (W/W) | 5 – 20%<br>0,3 – 0,6%<br>Anti- Dripping | | Up to 30% | 0,5 – 5% | 0,5 – 5% |

*+ Best Choice  F: Food Grade  AD: Anti-Dripping*



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