

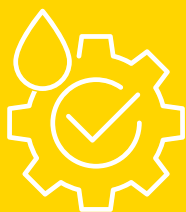


PLASTICS, ELASTOMERS, GREASES & OILS ADDITIVES

LINEPLUS™
PTFE MICROPOWDERS



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PRODUCT OVERVIEW:

Maflon Lineplus™ PTFE micropowders are finely divided white powders of PTFE resins. They are typically added in small quantities to other solid or liquid materials to improve their abrasion resistance and lubricity properties. They could be classified as a different product line if compared to standard PTFE moulding and extrusion resins, due to some differences. The main ones are lower molecular weights, smaller particle sizes (down to 2 µm) and different particle shapes. When added in small quantities, Lineplus™ PTFE micropowders could impart to the hosting materials some of the most important properties of PTFE.

LINEPLUS™ PRODUCTS	COLOUR	BULK DENSITY (g/l) ASTM D4894	MOISTURE CONTENT (%) B.W. (23 °C) INTERNAL METHOD	PARTICLE SIZE DISTRIBUTION (µm) ISO13320	SPECIFIC SURFACE AREA (m²/g) ASTM D4591	MELTING POINT (°C) ASTM D4591	MELT FLOW INDEX (g/10 min) ASTM D1238	PFOA CONTENT COMPLIANCE (1) ¹	FOOD CONTACT APPROVALS
PF 148-PMH	White	320	<0,02	D50: 2,0 D90: 5,0	9,0	330,0	2,0	≤25 ppb	● ●
PF 150-P	White	340	<0,02	D50: 3,0 D90: 8,0	9,0	332,5	2,0	≤1.000 ppb	● ●
PF 150-PH	White	340	<0,02	D50: 3,0 D90: 8,0	9,0	332,5	2,0	≤25 ppb	● ●
PF 250-F	White	370	<0,04	D50: 6,0 D90: 13,0	4,0	332,5	0,5	≤1.000 ppb	●
PF 250-FH	White	390	<0,04	D50: 6,0 D90: 13,0	4,0	332,5	0,5	≤25 ppb	●
PF 250-H	White	410	<0,04	D50: 4,0 D90: 10,0	4,0	329,0	6,0	≤25 ppb	●
PF 255-H	White	430	<0,04	D50: 4,0 D90: 9,0	4,0	328,0	10,0	≤25 ppb	●
PF 260-H	White	460	<0,04	D50: 2,5 D90: 4,5	4,0	322,0	>100,0	≤25 ppb	●
PF 267-H	White	460	<0,04	D50: 2,0 D99: <7,0	4,0	322,0	>100,0	≤25 ppb	●
PF 600-H	White	520	<0,04	D50: 18,0 D90: 40,0	3,5	329,0	5,0	≤25 ppb	●
PF 625-F	White	400	<0,04	D50: 18,0 D90: 40,0	3,0	344,0	<0,1	≤25 ppb	●
PF 631-F	White	740	<0,04	D50: 670,0 D99: 1.200,0	3,0	344,0	<0,1	≤25 ppb	●
PF 633-F	White	830	<0,04	D50: 550,0 D99: 950,0	3,0	344,0	<0,1	≤25 ppb	●
PF 640-F	White	500	<0,04	D50: 35,0 D90: 90,0	3,0	344,0	<0,1	≤25 ppb	●
PF 650-F	White	460	<0,04	D50: 20,0 D90: 40,0	3,0	332,5	0,5	≤1.000 ppb	●
PF 650-FH	White	460	<0,04	D50: 20,0 D90: 40,0	3,0	332,5	0,5	≤25 ppb	●
PF 250-RH*	Off-White	550	<0,1	D50: 6,0 D90: 12,0	2,5	320,0	>150,0	≤25 ppb	●
PF 251-RH*	Off-White	480	<0,1	D50: 3,0 D99: <12,0	3,0	320,0	>150,0	≤25 ppb	●
PF 253-RH*	Off-White	520	<0,1	D50: 4,0 D99: <16,0	3,0	320,0	>150,0	≤25 ppb	●

PROPERTIES:

- IMPROVE NON-STICKING PROPERTIES
- REDUCE THE FRICTION COEFFICIENT
- INCREASE SCRATCHING, CORROSION AND UV RESISTANCE
- IMPROVE THERMAL STABILITY
- ALMOST TOTAL CHEMICAL INERTNESS
- DO NOT ABSORB MOISTURE
- INCREASE WEATHERABILITY AND LUBRICITY OF THE HOSTING MATERIALS
- DRY LUBRICANT FUNCTION
- IMPROVE PLASTIC AND RUBBER COMPOUNDS PERFORMANCES
- IMPROVE DURABILITY OF INKS AND PRINTING FORMULATIONS
- IMPROVE GREASE AND LUBRICANT PERFORMANCES



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PF 265-RH*	Off-White	480	<0,1	D50: 6,0 D90: 13,0	2,5	324,0	15,0	≤25 ppb	●
PF 355-RH*	Off-White	900	<0,1	D50: 20,0 D90: 60,0	2,0	326,0	10,0	≤25 ppb	●
PF 750-RH*	Off-White	900	<0,1	D50: 30,0 D90: 80,0	2,0	326,0	20,0	≤25 ppb	●
PF 3004	White	510	<0,04	D50: 25,0 D90: 60,0	2,5	-	<0,1	≤1.000 ppb	●
PF 3004-H	White	510	<0,04	D50: 25,0 D90: 60,0	2,5	-	<0,1	≤25 ppb	●

¹ Compliant with the limits set by Regulation (EU) 2019/1021 on Persistent Organic Pollutants (Annex I) and following amendments.

* For all of the above -R listed Lineplus™ powders there is also available the whitened -RB version

● Compliant with **FDA 21 CFR 177.1550** and Regulation (EU) **10/2011** and following amendments.

● Compliant with **FDA 21 CFR 175.300** and Regulation (EU) **10/2011** and following amendments.

● Registered as Category Code H1, HX-1 or both to the NSF International/Non-food Compounds Registration Program.

APPLICATION VS GRADES

INKS

Maflon Lineplus™ PTFE micropowders are added up to 5% in inks recipes to improve slip and rub resistance, reducing the CoF and keeping under control the surface smoothness and gloss.

Suggested grades: **PF 251-RH, PF 253-RH, PF 250-RH.**

COATINGS

Maflon Lineplus™ PTFE micropowders provide outstanding wear, abrasion and corrosion resistance; moreover, they support the slip, acting surface modifiers (gloss or matt).

Suggested grades: **PF 251-RH, PF 253-RH, PF 260-H, PF 267-H.**

To fit the most demanding requirements on this application, we suggest:

- **PF 253-RH** grade, that shows **Hegman** average values of **7,0**.

- **PF 251-RH** grade, that shows **NPIRI** average values of **2,5**.

SEALANTS, TECHNICAL SPRAYS AND FOAMS

Maflon Lineplus™ PTFE micropowders improve water repellence as well as chemical and temperature resistance of the formulation. Further, the PTFE particles act as a nucleating agent during the foaming process of PU and PP.

Suggested grades: **PF 260-H, PF 267-H, PF 150-PH.**

POWDER COATING

Maflon Lineplus™ PTFE micropowders reduce mar and abrasion resistance, working as texturing agents.

Suggested grades: **PF 3004-H, PF 631-F, PF 255-H.**

THERMOPLASTICS & ELASTOMERS

Maflon Lineplus™ PTFE micropowders improve a wide range of properties which include wear and abrasion resistance, anti-dripping, flame retardancy and simplifying the mould release.

The grades with the highest number of functional groups like **PF 253-RH** can be chemical coupled with PA.

Suggested grades: **PF 600-H, PF 650-FH, PF 625-FH, PF 150-PH, PF 355-RH, PF 253-RH, PF 750-RH.**

GREASES & LUBRICANTS

Maflon Lineplus™ PTFE micropowders work as thickening and viscosity adjusters in greases and oils production to improve wear and anti-stick performances as well as chemical and temperature resistance.

Suggested grades: **PF 150-PH, PF 251-RH, PF 253-RH, PF 250-FH, PF 255-H.**



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