



Lubrizol

PERFORMANCE COATINGS

PTFE-ALTERNATIVE SURFACE MODIFIERS FOR INKS AND COATINGS

DON'T SACRIFICE ON PERFORMANCE!

Lubrizol has developed a range of PTFE-free* micronized waxes and liquid wax dispersions for water-based and solvent-based inks and coatings that significantly improve rub, scratch and abrasion resistance while reducing coefficient of friction (COF) comparable to traditional PTFE-based wax additives.

Benefits of PTFE

Polytetrafluoroethylene (PTFE) has brought desirable properties for traditional ink and coating applications. Low molecular weight PTFE micronized powders have been used to reduce the coefficient of friction of the film to aid mobility and to lubricate and protect surfaces from scratch and abrasion forces. Anti-blocking properties and release effects can also be generated.

Achieving low molecular weight and friability has typically required irradiation to enable particle size reduction using conventional micronization techniques. The irradiation process has been demonstrated to generate PFAS components, with PFOA and PFOS both classified as reproductive toxins and suspected carcinogens.

Regulatory Actions Impacting the use of PTFE

In 2019, a global ban on PFOA and its salts as persistent organic pollutants (POPs) was agreed under the Stockholm Convention restricting the use of raw materials containing >25 ppb PFOA. Following the legislation, certain PTFE raw materials were withdrawn. This global impact is driving the ink and coating industries to shift away from raw materials like PTFE. Additionally, PTFE stability properties that have driven use in many applications and its halogen content also impact cradle-to-cradle policies.

Lubrizol's Solutions

Lubrizol's technical team has focused on development of PTFE-alternative surface modifiers to deliver similar properties to PTFE-containing additives. PTFE-alternative technologies are available in micronized and dispersed forms of surface modifying additives under the Lanco™ Surface Modifiers brand. More products are currently under development to meet specific customer needs and to provide additives for a wider range of applications.

* Not intentionally added to the composition of this product.

WHAT WE ADD MAKES THE DIFFERENCE.™

- HIGHLY EFFECTIVE SURFACE PROTECTION
- SUITABLE FOR USE IN WATER-BASED AND SOLVENT-BASED INKS & COATINGS
- SMALL PARTICLE SIZE AND NARROW DISTRIBUTION
- EXCELLENT RUB, SCRATCH AND MAR RESISTANCE
- SLIP/COF REDUCTION
- GLOSS RETENTION
- ANTI-BLOCKING
- EU 10/2011 AND FDA 21 CFR 175.300 COMPLIANT

www.lubrizol.com/coatings



MICRONIZED PTFE-FREE SURFACE MODIFIERS

PRODUCT NAME	POLYMER TYPE	PARTICLE SIZE		MELTING POINT °C (°F)	DENSITY at 20 °C g/cm ³	APPLICATIONS			
		Dv50 μm	Dv90 μm			CAN & COIL COATINGS	GENERAL INDUSTRIAL COATINGS	WOOD COATINGS	INKS
Lanco™ 1510 EF	Polyolefin Wax	≤ 5	≤ 9.5	106 (223)	0.96	• (thin film)	•		•
Lanco™ 2510 SF	Inorganically Modified Wax	≤ 6	≤ 14	105 (221)	1.05	•	•	•	•
Lanco™ 2520 SF	Inorganically Modified Wax	≤ 6	≤ 14	105 (221)	1.07	•	•	•	
Lanco™ 2520 EF	Inorganically Modified Wax	≤ 5	≤ 10	105 (221)	1.07	• (thin film)	•		

DISPERSED PTFE-FREE SURFACE MODIFIERS

PRODUCT NAME	POLYMER TYPE	SOLIDS %	SOLVENT	PARTICLE SIZE		MELTING POINT °C (°F)	DENSITY at 20 °C g/cm ³	APPLICATIONS		
				Dv50 μm	Dv90 μm			CAN & COIL COATINGS	GENERAL INDUSTRIAL COATINGS	WOOD COATINGS
Lanco™ Glidd 7605	Inorganically Modified Polyolefin Wax	20	Aromatic 100, Butyl Glycol	≤ 4	≤ 8	105 (221)	0.93	• (thin film)		
Lanco™ Glidd 7607	Inorganically Modified Polyolefin Wax	20	Water, Butyl Glycol	≤ 4	≤ 8	105 (221)	0.99	• (thin film)	•	•
Lanco™ Glidd 7610	Inorganically Modified Carnauba Wax	18.5	Butyl Glycol	≤ 4	≤ 8	82 (180)	0.93	• (thin film)	•	•
Lanco™ Glidd 7612	Inorganically Modified Wax Compound	27	Water, Butyl Glycol	≤ 6	≤ 12	106 (223)	0.98	•	•	•



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