

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



TECHNICAL DATA SHEET PPW-9003

PRODUCT CLASSIFICATION

Chemical Name	POLYPROPYLENE WAX (MICRONIZED)
Grade Name	PPW-9003
CAS No.	9003-07-0
HS Code	3404.90.00
EINECS No.	Polymer Exempt
Molecular Formula	$(C_3H_6)_n$
Molecular Weight	~3000 – 8000 g/mol (typical)
Synonyms	PP Wax, Polypropene Wax, Low Molecular Weight Polypropylene

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White to off-white fine powder	Visual
Odor	Odorless or faint waxy	Sensory
Drop Point	140 – 165 °C	ASTM D3954 (Mettler)
Density @ 25 °C	0.88 – 0.91 g/cm ³	ASTM D1505
Viscosity (at 170 °C)	50 – 500 cps (grade dependent)	Brookfield
Molecular Weight (Mn)	~3000 – 8000	GPC (Gel Permeation Chromatography)
Moisture Content	≤ 0.2%	Oven drying (105 °C)
Solubility in Water	Insoluble	Visual Observation
Particle Size (D50)	3 – 5 µm	Laser Diffraction
Particle Size (D99)	< 30 µm	Laser Diffraction

➤ The commercial specification may vary based on manufacturing process; above values are typical for micronized polypropylene wax used in industrial applications.

HEAVY METALS (EU REGULATION 10/2011 – CONTENT LIMITS IN ADDITIVES)

Element	Typical Limit	Test Method
Lead (Pb)	≤ 5 ppm	ICP, AAS, XRF
Cadmium (Cd)	≤ 1 ppm	ICP, AAS
Mercury (Hg)	≤ 1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS

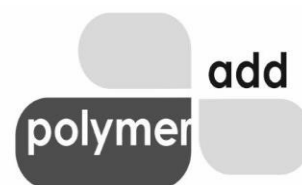
USES / APPLICATION

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Industry	Commercial Application / Uses (Micronized Grade)
Plastics & Polymers	Lubricant and dispersion agent in PP, PE, PVC compounding
Masterbatch	Flow modifier and anti-sticking aid for pigment & additive systems
Powder Coatings	Degassing agent and surface smoother
Inks & Pigments	Improves rub resistance, matting and anti-blocking
Adhesives	Rheology modifier and internal lubricant for hot melt formulations
Rubber	Processing additive and mold release agent in polyolefin rubbers

US FDA 21 CFR LISTING

CFR Section	Title / Description
178.2010	Antioxidants and stabilizers for polymers (where applicable)
175.105	Adhesives – permitted with limitations
177.1520	Polyolefins – indirect food additives in polymers (subject to purity)

COLOUR IMPACTING IMPURITIES

Element	Typical Max Limit (ppm)	Test Method
Iron (Fe)	≤ 100 ppm	ICP, AAS, XRF
Manganese (Mn)	≤ 30 ppm	ICP, AAS, XRF
Copper (Cu)	≤ 20 ppm	ICP, AAS, XRF
Nickel (Ni)	≤ 20 ppm	ICP, AAS, XRF
Chromium (Cr)	≤ 10 ppm	ICP, AAS, XRF

PRODUCT PERFORMANCE IMPACTING IONS / IMPURITIES

Ion / Element	Typical Max Limit (ppm)	Test Method
Calcium (Ca)	≤ 200 ppm	ICP, AAS, XRF
Magnesium (Mg)	≤ 100 ppm	ICP, AAS, XRF
Sodium (Na)	≤ 100 ppm	ICP, AAS, XRF
Potassium (K)	≤ 100 ppm	ICP, AAS, XRF
Chloride (Cl ⁻)	≤ 100 ppm	Ion Chromatography
Sulfate (SO ₄ ²⁻)	≤ 100 ppm	Ion Chromatography

Disclaimer:

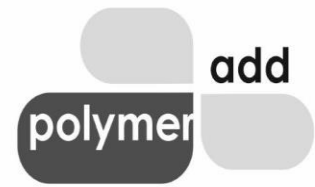
This material is designed for industrial applications. End-use suitability, especially for food contact or regulated applications, must be independently confirmed by the user. Values listed are typical and may vary by batch or production route. Not intended for medical devices or prolonged skin/mucosal contact.

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