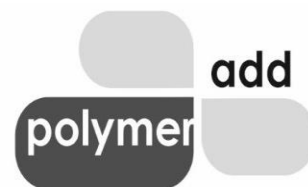


# Polymer Add (Thailand) Co.,Ltd.

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 PEW-9002

### PRODUCT CLASSIFICATION

|                   |   |
|-------------------|---|
| Chemical Name     | POLYETHYLENE WAX (MICRONIZED)                 |
| Grade Name        | PEW-9002                                      |
| CAS No.           | 9002-88-4                                     |
| HS Code           | 3404.90.00                                    |
| EINECS No.        | Polymer Exempt                                |
| Molecular Formula | (C <sub>2</sub> H <sub>4</sub> ) <sub>n</sub> |
| Molecular Weight  | Typically 1000 – 5000 g/mol                   |
| Synonyms          | PE Wax, Polyethene Wax, Low MW Polyethylene   |

### PHYSICAL & CHEMICAL PROPERTIES

| Property               | Typical Value / Description   | Test Method                         |
|------------------------|-------------------------------|-------------------------------------|
| Appearance             | White, fine micronized powder | Visual                              |
| Odor                   | Odorless or mild waxy         | Sensory                             |
| Drop Point             | 100 – 120 °C                  | ASTM D3954 (Mettler)                |
| Density @ 25 °C        | 0.90 – 0.95 g/cm <sup>3</sup> | ASTM D1505                          |
| Hardness (Penetration) | 1 – 3 dmm (at 25 °C)          | ASTM D1321                          |
| Viscosity (at 140 °C)  | 10 – 30 cps                   | Brookfield                          |
| Molecular Weight (Mn)  | ~1000 – 3000                  | 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 above properties are typical for commercial-grade micronized PE wax; batch-specific specifications may vary based on production route and intended use.

### 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

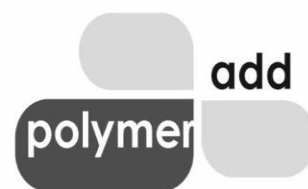
| Industry            | Commercial Application / Uses (Micronized Grade)                      |
|---------------------|---|
| Plastics & Polymers | Lubricant, dispersing agent, and mold release additive in PVC, PE, PP |
| Masterbatch         | Carrier resin and process aid in pigment or additive concentrates     |

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|                     |   |
|---------------------|---|
| Powder Coatings     | Flow and degassing aid; improves surface smoothness                   |
| Inks & Pigments     | Anti-block, rub resistance, and gloss control additive                |
| Adhesives           | Internal lubricant for hot-melt and PSA formulations                  |
| Rubber & Elastomers | Processing aid, mold-release additive in tire and compound processing |

## US FDA 21 CFR LISTING

| CFR Section | Title / Description  |
|-------------|--|
| 178.3720    | Polyethylene wax – permitted in food contact polymers (restrictions apply) |
| 175.105     | Adhesives for indirect food contact  |
| 177.1520    | Polyethylene – as base polymer or additive in food contact plastics        |

## 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 <sup>-</sup> )              | ≤ 100 ppm               | Ion Chromatography |
| Sulfate (SO <sub>4</sub> <sup>2-</sup> ) | ≤ 100 ppm               | Ion Chromatography |

### Disclaimer:

This product is intended for industrial use only. Typical properties are provided for general reference and are not to be interpreted as guaranteed specifications unless otherwise confirmed in writing. Suitability for food contact or regulated applications must be verified based on applicable legislation and testing.

Month of Creation: July 2025

Month of Review: July 2027