



## Technical Data Sheet

### Semi Refined Paraffin Wax 3-5%

#### 1. Product Identification

**Product Name:** Semi Refined Paraffin Wax 3-5%

**Alternative Names:** Paraffin Wax 3-5%, Semi Refined Paraffin, Petroleum Wax, Hydrocarbon Wax, Industrial Paraffin Wax, Paraffin Wax Slab, White Paraffin Wax

**Chemical Family:** Petroleum hydrocarbon wax

**CAS Number:** 8002-74-2

**EC Number:** 232-315-6

**Appearance:** White to off-white solid wax

**Typical Form:** Slab, block, granule, pastille, or flake

**Grade Type:** Semi refined paraffin wax

**Oil Content Range:** 3% to 5%

**Recommended Use:** Industrial manufacturing, candle production, rubber processing, packaging, coatings, polishes, textile treatment, leather finishing, and waterproofing compounds.

#### 2. Product Description

**Semi Refined Paraffin Wax 3-5%** is a petroleum-derived solid wax with controlled oil content, stable melting behavior, and practical industrial performance. Producers refine slack wax to reduce oil, color, odor, and impurities, then supply the material as a semi refined wax grade suitable for many commercial applications.

This grade gives manufacturers a strong balance between cost and performance. It offers better cleanliness and consistency than high-oil slack wax, while it remains more economical than fully refined paraffin wax. Its 3–5% oil content improves flexibility, blending behavior, and processing performance.

Manufacturers use this wax where they need reliable melting, good surface finish, water resistance, lubrication, mold release, and formulation stability.



### 3. Typical Specifications

Property	Typical Value	Test Method
Oil Content	3% – 5% wt.	ASTM D721
Melting Point	58°C – 64°C	ASTM D87 / ASTM D938
Color	White to off-white	ASTM D1500 / Visual
Penetration at 25°C	15 – 35 dmm	ASTM D1321
Kinematic Viscosity at 100°C	4 – 8 cSt	ASTM D445
Congealing Point	56°C – 62°C	ASTM D938
Odor	Mild characteristic wax odor	Organoleptic
Moisture Content	Max. 0.5%	ASTM D95
Flash Point	Usually above 200°C	ASTM D92
Solubility in Water	Insoluble	Visual
Form	Slab / Block / Granule / Pastille	Visual
Ash Content	Max. 0.05%	ASTM D482

**Note:** Values can change based on crude source, refining process, melting point grade, and customer specification. Final values should appear on the Certificate of Analysis.

### 4. Key Features

Semi Refined Paraffin Wax 3-5% offers:

- Controlled 3–5% oil content
- Good flexibility and moderate hardness
- Clean white to off-white appearance
- Stable melting and cooling behavior
- Easy blending with other waxes, oils, polymers, and additives
- Strong water resistance
- Good lubrication properties
- Practical cost-performance ratio
- Suitable quality for many industrial formulas
- Available in different physical forms and melting ranges



## 5. Main Applications

### *Candle Manufacturing*

Manufacturers use this wax for household candles, pillar candles, religious candles, decorative candles, and blended candle formulas. It supports smooth pouring, good mold release, and cost-effective production.

### *Rubber Industry*

Rubber producers use it as a processing aid, lubricant, and protective wax. It can help improve compound flow and support surface protection in selected rubber applications.

### *Packaging and Paper Coating*

The wax helps create moisture-resistant coatings on paper, carton, board, and industrial wrapping materials.

### *Polishes*

Polish manufacturers use it in shoe polish, floor polish, furniture polish, automotive polish, and paste wax formulas. It adds body, shine, film formation, and surface protection.

### *Coatings and Waterproofing*

Formulators use it to improve hydrophobicity, surface smoothness, and water resistance in industrial coatings and waterproofing systems.

### *Textile and Leather*

Textile and leather processors use it for lubrication, softness, surface finish, and water-repellent treatment.

### *Construction and Board Products*

Board, insulation, and construction material producers use paraffin wax to reduce water absorption and improve moisture resistance.



## 6. Compatibility

Semi Refined Paraffin Wax 3-5% blends well with:

- Fully refined paraffin wax
- Microcrystalline wax
- Slack wax
- Polyethylene wax
- Fischer-Tropsch wax
- Stearic acid
- EVA
- Resins
- Mineral oils
- Vegetable waxes
- Pigments and fillers
- Selected polymers and additives

Always test compatibility before full-scale production.

## 7. Processing Guidance

Use clean melting tanks, controlled heating, and proper mixing equipment. Heat the wax gradually and avoid unnecessary overheating. Keep molten wax away from water, dust, oxidizing agents, and open flames.

Typical processing recommendations:

Process Factor	Recommendation
Melting	Heat slowly and evenly
Mixing	Add compatible ingredients under controlled agitation
Temperature Control	Avoid overheating above required process temperature
Contamination Control	Keep wax clean and dry
Cooling	Cool under controlled conditions to avoid cracks or uneven texture



## 8. Packaging

Common packaging options include:

- 25 kg bags
- 25 kg cartons
- Slabs in woven bags
- Blocks on pallets
- Granules or pastilles in bags
- Jumbo bags
- Custom export packaging

Packaging depends on supplier capability, order size, destination, and handling requirements.

## 9. Storage

Store the product in a cool, dry, clean, and ventilated warehouse. Keep it away from direct sunlight, heat sources, sparks, open flames, and strong oxidizing materials.

Recommended storage conditions:

- Keep packaging closed until use
- Store away from dust and moisture
- Avoid high temperatures
- Do not store near incompatible chemicals
- Use first-in, first-out stock rotation

## 10. Shelf Life

Recommended shelf life: **24 months** from production date when stored in original closed packaging under proper conditions.



## 11. Quality Control Documents

Commercial buyers may request:

- Technical Data Sheet
- Safety Data Sheet / MSDS
- Certificate of Analysis
- Packing List
- Commercial Invoice
- Certificate of Origin
- Inspection Certificate, if required
- Product sample before bulk order