

Prowaxx™

Where passion meets precision

While rheology waxes are added in small quantities as lubricants in PVC compounding, the efficiency of the wax used makes an enormous difference. For decades, ExxonMobil has provided consistent support and high-quality products for our customers across the PVC industry, including rigid PVC, pipes and window profiles.

Key benefits in PVC wax formulations



Lower viscosity allows optimal migration to metal surface



Improved distribution in PVC matrix



Flexibility in processing conditions during extrusion



FDA compliant for use in food-grade applications[†]

Expertise to meet industry standards

Waxes are essential formulation components; they impact processing conditions — such as production speed, wear and tear on production equipment, temperature, filler load and energy consumption — and the appearance, strength and durability of the end product. Wax architecture ultimately determines performance as a PVC lubricant, and our Prowaxx fully refined (FR) paraffin waxes are designed and tested to:

- Provide the longest stable time to protect PVC quality during extrusion
- Operate at a wide temperature range and concentration levels
- Have a more homogenous distribution in PVC formulations compared to higher-viscosity Fischer-Tropsch wax

Lower-viscosity waxes — including Prowaxx FR paraffin wax — allow for the most flexible extrusion conditions and processing at a lower temperature, which means less energy consumption.

Our products

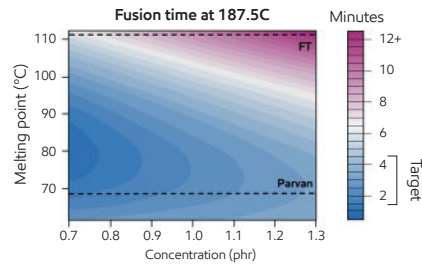
Product name	Description	Kinematic viscosity @ 135°C (cSt)	Drop melt point (°C)	Carbon number range
ASTM test method		D445	D87	D5442
Prowaxx 1471 FR	Mid-melt	3.1	65	C18 – C56
Prowaxx 1531 FR	High-melt	3.8	67	C20 – C58
Prowaxx 1551 FR	High-melt	4.0	68	C20 – C62
Prowaxx 1601 FR	High-melt	4.5	75	C20 – C66

[†] According to FDA 21 CFR 178.3710

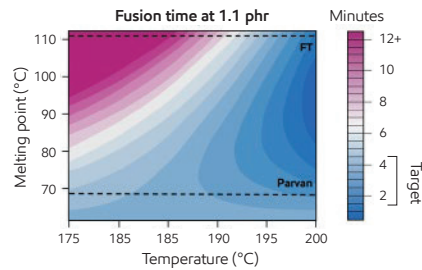
Wax designed for your success

Prowaxx FR paraffin waxes provide the most flexible operating conditions

In relation to concentration and temperature, the melting point of waxes makes a notable impact on the fusion time of the PVC.



Paraffin wax with <80°C melting point allows for the widest wax concentration range and processing temperature to achieve an optimal fusion time between 2-6 minutes.



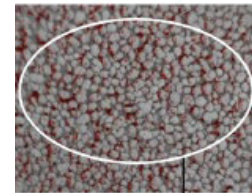
Waxes melting above 90°C require concentration below 1 phr and a processing temperature above 190°C to obtain fusion.

Superior performance from better distribution

SEM-EDS: PVC blends

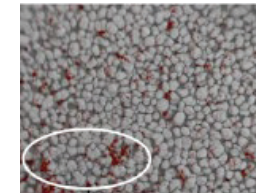
Paraffin waxes have superior homogenous distribution in the PVC mix as shown by scanning electron microscopy imaging with elemental mapping. The red carbon mapping shows the wax distribution with excellent uniform coverage of Prowaxx waxes in the PVC matrix, whereas high-viscosity FT waxes show spots of wax clustering.

Paraffin



Homogenous

FT wax



Aggregation

About ExxonMobil Waxes and Prowaxx

Prowaxx family of waxes is a wide-ranging paraffin portfolio from ExxonMobil Waxes. Our fully refined waxes offer the highest-level quality of refinement and are biodegradable under composting conditions.* Prowaxx semi-refined waxes are used in a broad range of formulas for perfectly balanced versatility. For economic flexibility and high production value, our slack waxes are available in a full range of melt points.

Our wax solutions are used across most industry applications, including candles, rheology, emulsions, crayons and boardsizing. To learn more about Prowaxx and our full range of wax products, please visit [exxonmobil.com/wax](https://www.exxonmobil.com/wax).



Over 125 years of experience as a wax supplier



Expertise in thought leadership and innovation



Versatility and flexibility to meet changing needs



Regional commitment to reliable supply

ExxonMobil | Waxes

*According to ASTM D6400-12 using ASTM D5339-11

©2024 Exxon Mobil Corporation. All trademarks used herein are trademarks or registered trademarks of Exxon Mobil Corporation or one of its subsidiaries. In this document, the term ExxonMobil is used for convenience only and may refer to Exxon Mobil Corporation or one of its affiliates. Nothing in this material is intended to override the corporate separateness of local entities.