

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 speed, temperature, filler load and energy – and the appearance, strength and durability of the product. Wax architecture ultimately determines performance as a PVC lubricant, and our paraffin waxes (Parvan™) 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 Fisher Tropsch wax

Lower viscosity waxes – including Parvan™ wax – allow for the most flexible extrusion conditions and processing at lower temperature, which means less energy consumption.

### Our products

Wax	Description	Kinematic viscosity @ 135°C (cSt)	Drop melt point (°C)	Carbon number range
Parvan 1471	Mid-melt paraffin wax	3.1	65	C18 – C56
Parvan 1520	High-melt paraffin wax	3.8	67	C20 – C58
Parvan 1540	High-melt paraffin wax	4.0	68	C20 – C62
Parvan 1580	High-melt paraffin wax	4.5	75	C20 – C66

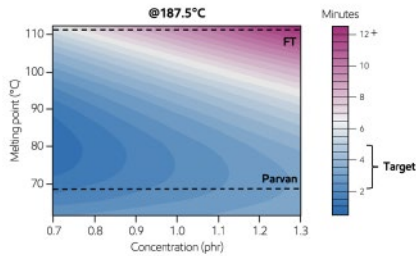
† According to ASTM D6400-12 using ASTM D5338-11

Where  
passion  
meets  
precision

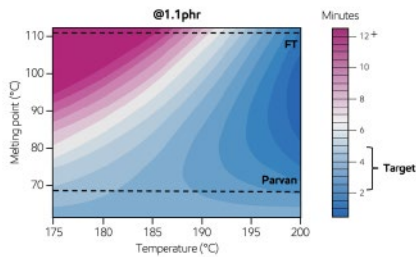
# Wax designed for your success

## Parvan 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.



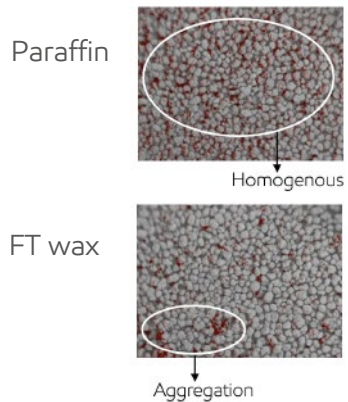
Paraffin wax with  $<80^{\circ}\text{C}$  melting point allows for the widest wax concentration range and processing temperature to achieve an optimal fusion time between 2-6 minutes.



Waxes melting above  $90^{\circ}\text{C}$  require concentration below 1 phr and a processing temperature above  $190^{\circ}\text{C}$  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 Parvan waxes in the PVC matrix, whereas high viscosity FT waxes showed spots of wax clustering.

## Why choose ExxonMobil 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



Parvan wax is a versatile and efficient lubricant for the production of exceptional PVC window profiles.

## About ExxonMobil

For more than 125 years, ExxonMobil has set the standard for technology leadership in the wax industry. You can expect state-of-the-art supply reliability and consistent quality to help improve your applications.

To learn more about our full range of wax products, please visit [exxonmobil.com/wax](http://exxonmobil.com/wax).