




White oils for adhesives and elastomers

The adhesives and elastomers industries produce a very broad range of products, from glue to diapers, toys to toothbrushes, and white oils play a key role in these industries. When you're producing any of these products, you can depend on the purity and exceptional quality of our Primol™ line of white oils.

Hot melt adhesives

In hot melt adhesives, white oil acts as a diluent — where high transparency is required or when the product can come in contact with human skin or food. For this application, Primol™ 352 is a popular choice among major adhesives manufacturers worldwide due to its consistent quality that helps create premium products with excellent performance characteristics.* It also meets Pharmacopoeias requirements if food or skin contact is anticipated.

Elastomers

White oils play a key role in the manufacture of thermoplastic elastomers. Elastomeric materials that can be processed without vulcanization use white oil as an extender to facilitate fabrication, particularly when light color or food approval are required. For this application, any of the Primol white oils can be helpful, depending on its particular function in the process.

In Ethylene Propylene Diene Monomer (EPDM) elastomers, white oils are often used as extenders, mainly to adjust mechanical properties to the end use, and particularly when weather and heat resistance are required, such as in flexible piping and car sealants.

Primol white oils

Primol 352, Primol™ 382 and Primol™ 542 are purified mixtures of liquid saturated hydrocarbons. Each is a colorless, transparent, oily liquid, and is essentially odorless and tasteless.

Primol 382 has better low volatility properties than Primol 352. Both products are well suited for the extension of Thermoplastic Elastomers (TPE).* It is also recommended for hot-melt adhesives formulations used in sanitary products.

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*Applications of white oils are subject to the applicable laws and regulations in each country. User must check compliance with applicable regulations.

With even better volatility properties, Primol™ 542 can be used in these applications as well as in the manufacture of rubber products.

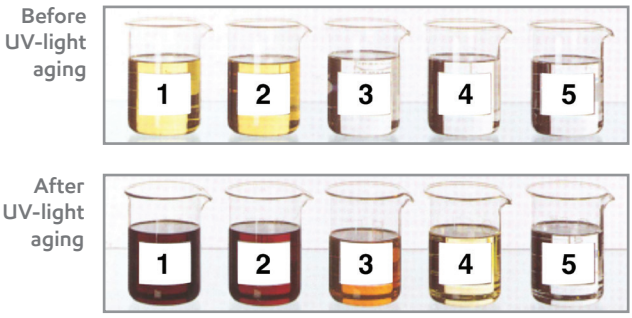
All of the Primol™ white oils provide the crucial benefits you want from white oils of the highest quality, including:

- Water-white color for easy colorability
- UV stability to prohibit color fading as well as surface hardening and cracking
- Thermal stability for high-temperature processing
- Low volatility and high flash point, which promote factory hygiene and safety, along with high-quality product surface
- Very low sulfur and aromatics
- Low fogging characteristics
- No toxicity
- Compliance with EU and U.S. FDA food contact regulations

ExxonMobil Primol grades meet the requirements of Commission Regulation (EU) No. 10/2011 as of 14 January 2011 on plastic material and articles intended to come into contact with food. As such, they are the ingredients of choice for the formulation of plastic or elastomer compounds used in articles that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, and which need to comply with EU Regulation 1272/2013 limiting polycyclic aromatic carbons in those consumer goods, as well as in toys and childcare articles.

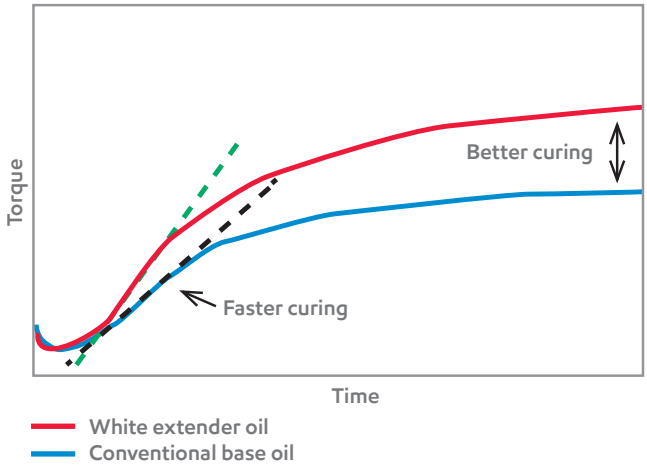
For the manufacture of many types of hot-melt adhesives, TPE or EPDM elastomer products, including non-wovens, you can depend on the extraordinary quality of ExxonMobil white oils to deliver outstanding performance and peace of mind.

Color stability to light aging (accelerated test)



1. Vegetable oil
2. Process oil
3. FDA-C low-color mineral oil
4. FDA-B technical white oil
5. FDA-A medicinal white oil

Oscillating disc rheometer curve



For more information on how ExxonMobil white oils can provide solutions for you, contact your local representative or visit us at exxonmobil.com/whiteoil.

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