A BETTER WAY TO FORMULATE

VERSAGEL®

VERSAGEL® M & MX

MOISTURIZING GELS

Versagel technology is used in thousands of cosmetic, pharmaceutical and personal care products around the world. Our innovative patented system for thickening and gelling hydrocarbon materials offers an infinite number of customized rheological properties.

- Clear, colorless (does not discolor with age), hydrophobic, thermally reversible and without syneresis.
- Creates a film barrier for added moisturization, delivers superior stabilization and suspension properties.
- Available in multiple viscosity ranges and compatible with many common ingredients.
- Easier and safer than gels made using metal stearates or fumed silica.
- Provides enhanced fragrance retention and waterproofing properties.

For more than 100 years, Penreco® has specialized in niche product blending to meet customer specific requirements. If you are interested in finding out more about the many attributes of our gelled technology, we can provide supporting clinical studies. Please contact your Penreco sales representative and our technical experts will be happy to find a solution that's right for you.

Let us show you a better way to formulate.

penreco®

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To request a sample, visit penreco.com.

VERSAGEL® M & MX

MOISTURIZING GELS

The Versagel M & MX products are based on gelling USP grade white mineral oil in such a way as it promotes superior moisture retention by creating a continuous film enabling oil to be easily spread with no pooling of the product. It also provides a low-moisture system for protection of water-sensitive additive packages/ingredients. In liquid systems fine particles don't easily remain in suspension; they tend to settle at the bottom and agglomerate. As shown below in the suspension stability testing, Versagel provides excellent suspension properties because the polymers provide sufficient yield stress to prevent aggregation and settling.

APPLICATIONS

■ Color Cosmetics ■ Fragrances ■ Hair Products ■ Soap and Bath Products ■ Skin Care ■ Sun Care
■ Pharmaceuticals/Nutraceuticals ■ Healthcare

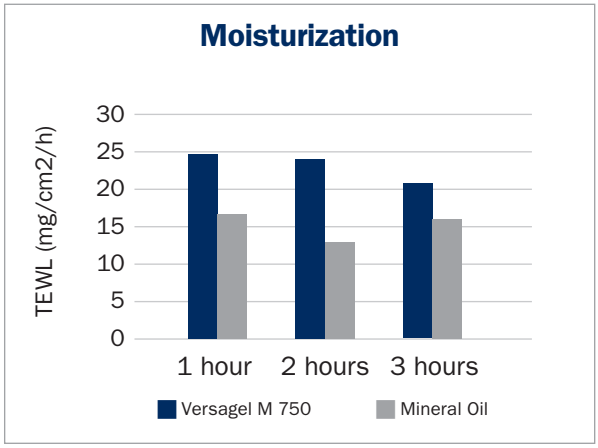
TYPICAL PROPERTIES

	VISCOSITY @ 25 °C D2983 (cPs)	SPECIFIC GRAVITY @ 25/25 °C D4052	SAYBOLT COLOR D156	FLASH POINT °C ASTM D92	POLARITY LOG P
VERSAGEL M (70 VIS White Mineral Oil)					
M 200	13,330 - 27,700	0.8421	+30	>175	10.0
M 500	47,000 - 57,000	0.8445	+30	>175	10.0
M 750	67,000 - 83,000	0.8434	+30	>175	10.0
M 1600	132,000 - 198,000	0.8425	+30	>175	10.0
VERSAGEL MX (600 VIS White Mineral Oil)					
MX 500 T	58,400	0.8735	+30	>250	10.0
MX 750 T	75,500	0.8687	+30	>250	10.0
MX 1600 T	132,000 - 198,000	0.8688	+30	>250	10.0

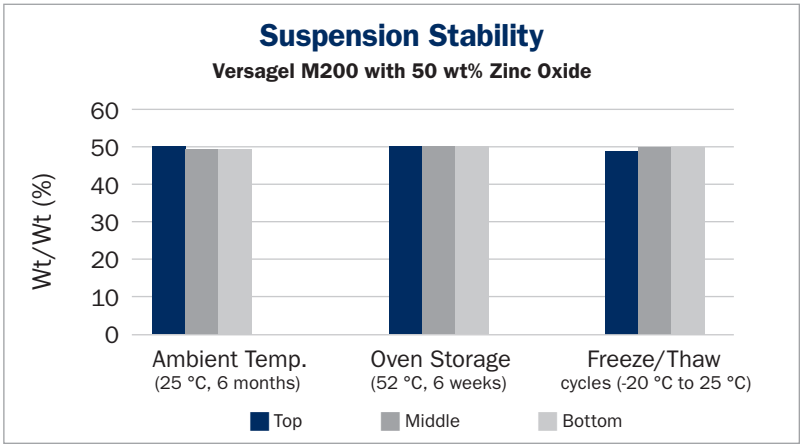
Versagel MX meets the EU Colipa Lip Care Requirements.

International Nomenclature of Cosmetic Ingredients (INCI):
Mineral Oil (and) Ethylene/Propylene/Styrene Copolymer (and) Butylene/Ethylene/Styrene Copolymer.

All products are also available with Tinogard®, Pentaerythrityl Tetra-di-t-butyl Hydroxyhydrocinnamate and will be indicated by a T in the name.
Tinogard® is a registered trademark of Ciba Specialty Chemical Corporation.



The TEWL test shows gelled mineral oil improves moisturization by 53% more than mineral oil alone. Using a gelled product in your formulation can significantly improve its moisturization benefits.



No change in suspension capabilities under test conditions. Gelled mineral oil maintains suspension of active ingredients at a very high load.

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