



A BETTER WAY TO FORMULATE

VERSAGEL®

VERSAGEL® ME

MINERAL OIL-FREE GEL

Penreco's® 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® ME

MINERAL OIL-FREE GEL

The Versagel ME series products are patented gelled emollients which exhibit extraordinarily good clarity, excellent thermal and UV stability, and versatile chemical compatibility. It is highly non-polar and thus, has a better affinity for low polarity materials such as fatty esters, low HLB nonionic surfactants, cyclomethicone, and other synthetic and natural emollients. Moisturization properties will be affected only minimally even though the viscosity of the gel may decrease significantly when other ingredients are added.

TYPICAL PROPERTIES

	VISCOSITY @ 25 °C (cPs)	SPECIFIC GRAVITY @ 25 °C	SAYBOLT COLOR ASTM D-156	FLASH POINT °C ASTM D-92
VERSAGEL ME (Hydrogenated Polyisobutene)				
ME 500	64,000	0.82	+30	>165 °C
ME 750	100,000	0.82	+30	>165 °C
ME 1600	177,000	0.82	+30	>165 °C
ME 2000	260,000	0.82	+30	>165 °C

International Nomenclature of Cosmetic Ingredients (INCI):

Hydrogenated Polyisobutene (and) Ethylene/Propylene/Styrene Copolymer (and) Butylene/Ethylene/Styrene Copolymer

APPLICATIONS

- Color Cosmetics/Makeup: lip gloss, lipstick, mascara, eyeliner, eyebrow gel, eyeshadow/paints, blush, bronzer, foundation, concealer, illuminators, primer
- Skin Care: moisturizers, gels, oils, lotions, butters, creams, scrubs, balms, exfoliators, masks/peels, sun protection, massage oil, serums
- Hair Care: treatments, serums, oils, conditioners, sprays, styling products
- Health Care: topicals, ointments, wound healing products

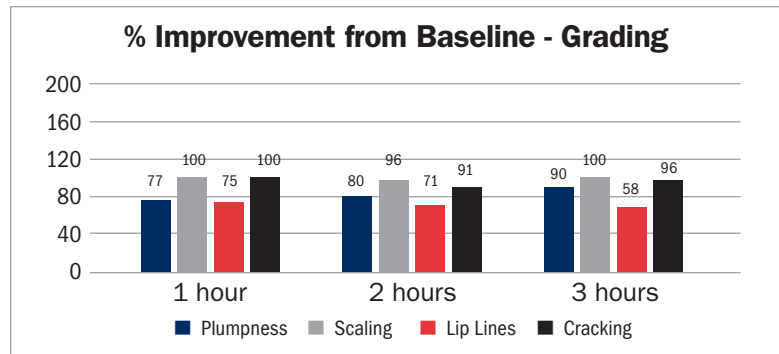
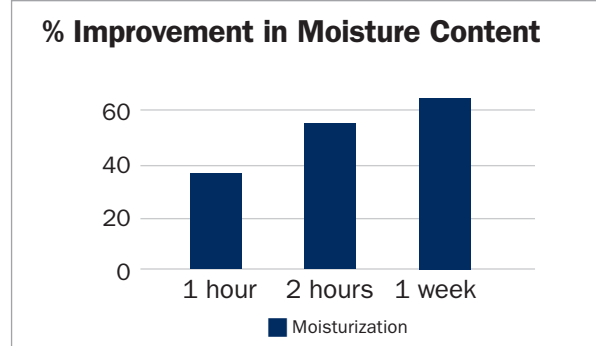
VERSAGEL ME 750 MOISTURIZATION AND LIP CONDITIONING BENEFITS STUDY

In the clinical study, moisture content of the lips was measured with a NOVA Dermal Phase Meter (NOVA DPM) which measures the moisture in the skin by measuring an electrical parameter (impedance). Measurements were taken on the right and left side of the lower lip to quantify the moisture content of the stratum corneum. Overall, there was a 61% improvement in lip moisture content in 1 week.

Additionally, lip condition was graded by skilled clinician comparing all improvements to baseline. The clinical grading of lip condition correlated with the instrumentally measured improvement in skin moisturization at 1h, 2h, and 1 week:

- Plumpness: Increased 45%
- Scaling: Decreased 27%
- Lip Lines: Decreased 62%
- Cracking: Decreased 22%

The high sensitivity of lip skin is well known and partly due to its much lower number of skin layers compared to regular skin. This makes lips highly susceptible to dryness. The excellent performance of Versagel ME in lip care applications is due to its exceptional mildness, moisturization and lip conditioning benefits — which also makes it an excellent ingredient for leave-on skincare products such as creams and lotions.



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