



EcoSmooth™ Universal Fluid 1100

Discover the sensational versatility of our new bio-based and biodegradable carrier, a challenger to silicone fluid performance



Achieving a zero waste goal is a significant challenge for any beauty brand. One solution is to use ingredients made with or from upcycled materials. Dow is supporting brands' journey toward a more sustainable future by launching EcoSmooth™ Universal Fluid 1100, a biodegradable, renewable feedstock sourced material made with what is left from plant cultivation after harvesting.

As a worldwide silicone technology expert, Dow has looked extensively for technologies that can offer an honest comparable performance to silicone chemistry. EcoSmooth™ Universal Fluid 1100 addresses the challenges of replacing high-performing and cost-effective silicone fluids with naturally derived ingredients that have a positive impact on the environment.

INCI: Ethyl PG-Acetal Levulinate

Typical properties	
Property	Result
Appearance	Crystal clear liquid
Active content	100%
Viscosity	3.5 cPs
Flash point	111.5°C
Refractive index at 25°C	1.430
Volatility	Low
Specific gravity	1.03 at 23.9°C
Surface tension	31.03 mN/m at 22.2°C
Shelf life	2 years
China compliance	Not listed in the catalog of cosmetic ingredients
Biodegradability	Ultimately biodegradable (ASTM E 1720 -01*)
Source	Plant-based
Naturality origin index (ISO 16128)	0.7
COSMOS by Ecocert	Application in progress

These values are not intended for use in preparing specifications

*Similar guidelines to OECD Guideline 301B

Benefits for consumers

- Support the formulation of organic/natural products: 0.7 naturality origin index (ISO 16128)
- Ultimately biodegradable (ASTM E 1720 -01*)
- Good spreadability
- Non-greasy and non-tacky for a light feel
- Soft skin feel
- Ease of formulation: highly compatible profile with cosmetic ingredients and fragrances

*Guidelines are similar to OECD Guideline 301B.

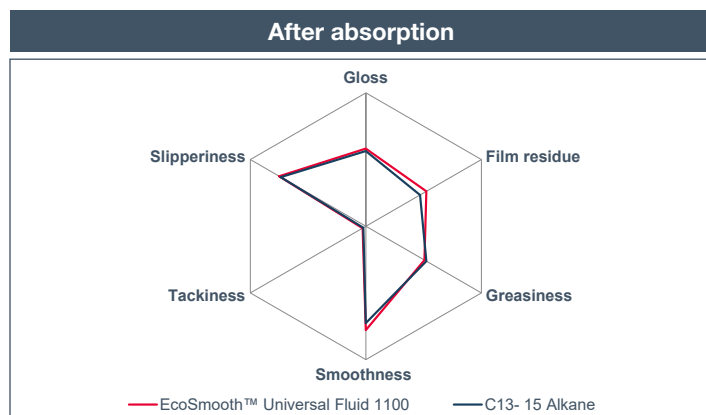
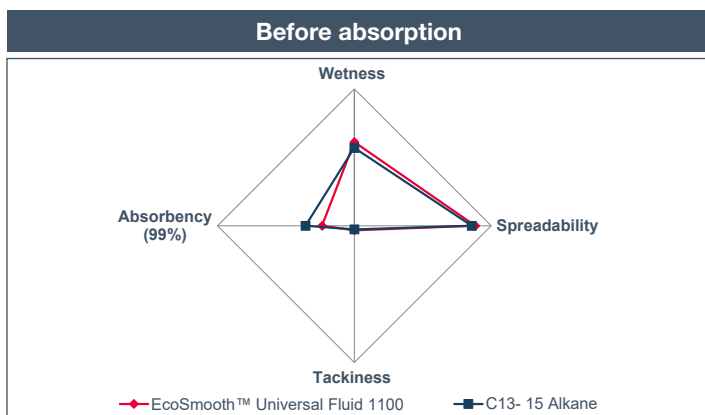
Applications

- Antiperspirants*
- Deodorants*
- Cleansing products
- Skin creams
- Lotions
- Color cosmetics

*Not applicable in North America.

Sensory profile – Neat materials (18 panelists)

Comparison with C13-15 Alkane

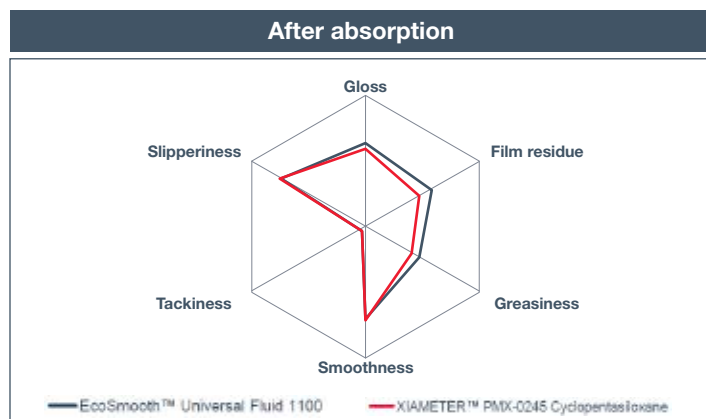
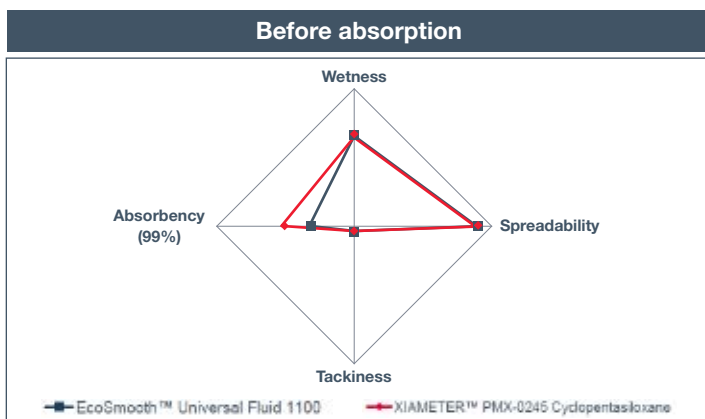


The graphic representations are presented here for illustrative purposes only and should not be construed as product specifications.

Before absorption, EcoSmooth™ Universal Fluid 1100 provides similar wetness, spreadability and tackiness to C13-15 Alkane. The difference in the absorbency parameter can be tackled by adding more volatile ingredients. After absorption, EcoSmooth™ Universal Fluid 1100 provides a similar sensory profile to C13-15 Alkane.

Sensory profile – Neat materials (18 panelists)

Comparison with XIAMETER™ PMX-0245 Cyclopentasiloxane



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EcoSmooth™ Universal Fluid 1100 can be an alternative to Cyclopentasiloxane, providing similar wetness, spreadability and tackiness before product absorption and a similar sensory profile after. The difference in the absorbency sensorial parameter can be tackled by adding more volatile ingredients.

Learn more

For more information about EcoSmooth™ Universal Fluid 1100, such as prototype formulations, please contact your customer service representative or visit [dow.com/virtual/beautyexperience](https://www.dow.com/virtual/beautyexperience).

About Dow

Dow Personal Care offers unique, innovative ingredients that enable customers around the world to create products with exceptional performance and exciting benefits that consumers can trust and believe in. Whether they seek the confidence of a healthy appearance or the comforts of a clean home, consumers can see and feel the difference in our products through their lustrous hair, radiant skin, shiny surfaces, and fabrics that look and smell fresh. We leverage our understanding of customer needs, deep market knowledge and technical expertise—combined with one of the broadest portfolios of technologies—to deliver home and personal care solutions with outstanding performance that are safe for people and the planet. We foster these innovations on global and local levels to meet the needs of diverse consumers through business centers, research and development (R&D), manufacturing plants and customer applications centers around the world. Please visit www.dow.com/personalcare for more information.

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