



XIAMETER™ PMX-9027 Fluid

INCI Name: Cyclopentasiloxane (and) Dimethiconol (and) Dimethicone Crosspolymer

Features & Benefits

- Optimal blend of silicone gum, elastomer and cyclopentasiloxane
- Translucent fluid
- Low viscosity - easy to formulate
- Combines dry and powdery feel of elastomer and velvety smooth feel of gum for hair and skin
- Non-tacky
- Very good spreadability
- Fast absorption
- Wash-off resistance
- Film barrier property
- Imparts shine to hair
- Decreases flyaway
- Helps to retain hair moisture during heat treatment
- Protects hair from heat damage
- Improves detangling and combing
- Helps prevent and repair split ends

Applications

Can be used in a wide range of personal care applications such as:

- Skin care (e.g., facial moisturizers, body lotions)
- Sun care
- Color cosmetics
- Hair care (e.g., rinse-off and leave-in conditioners, and as neat fluid in styling products)

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Appearance		Clear to slightly hazy, viscous liquid
Viscosity at 25°C (77°F)	mm ² /s	3,000–5,000
Flash point	°C	> 62
Non-volatile content	%	11

Description

XIAMETER™ PMX-9027 Fluid is a unique blend of an ultra-high viscosity dimethiconol and silicone elastomer in cyclopentasiloxane. It has been specially formulated to provide excellent conditioning and heat protection. On skin, it combines the unique feel of silicone elastomer and silicone gum.

Benefits

On skin, XIAMETER™ PMX-9027 Fluid combines the dry and powdery feel of elastomer with the velvety smooth feel of gum. Figure 1 demonstrates the unique skin sensory profile of XIAMETER™ PMX-9027 Fluid in comparison with both a silicone gum blend and an elastomer blend. It also has good wash-off resistance as demonstrated in Figure 2.

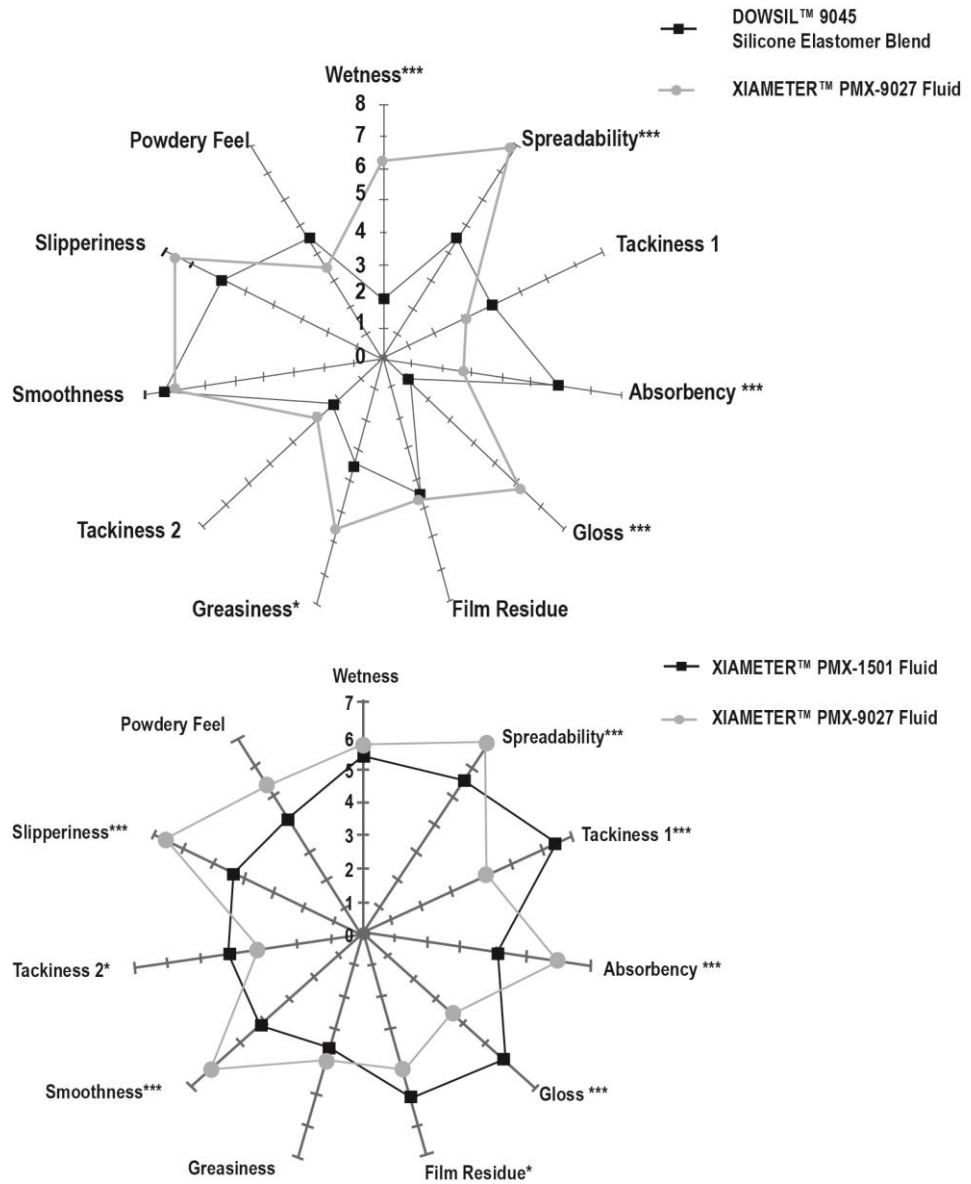


Figure 1: XIAMETER™ PMX-9027 Fluid skin sensory profile in comparison with a silicone elastomer blend and a silicone gum blend.

Tackiness 1: Before absorption.
 Tackiness 2: After absorption
 *Different at 95% confidence level
 **Different at 99% confidence level
 ***Different at 99.9% confidence level

Benefits (Cont.)

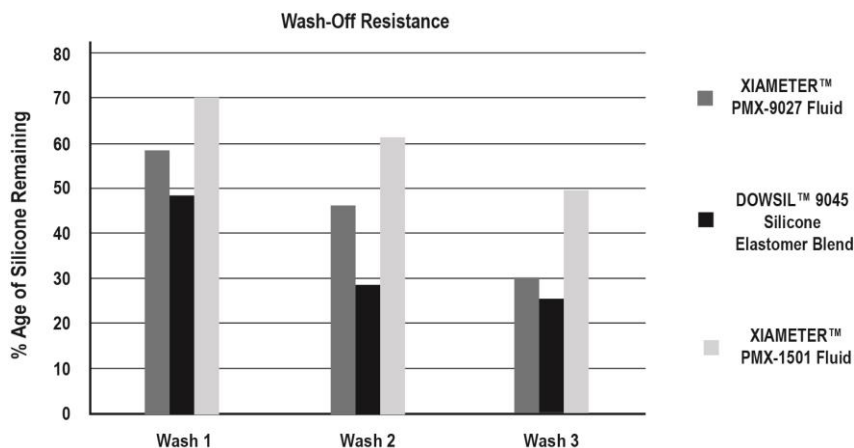


Figure 2: Skin Wash-Off Resistance

On hair, XIAMETER™ PMX-9027 Fluid provides a smooth, dry feel to the hair. It also adds shine and decreases flyaway. Studies also have shown that XIAMETER™ PMX-9027 Fluid will protect hair from heat damage by reducing the loss of water and improving sensory feel. Improved sensory results also demonstrate heat protection. Figure 3 shows that hair treated with XIAMETER™ PMX-9027 Fluid and heat treated had better sensory results than hair with no silicone treatment even after shampooing.

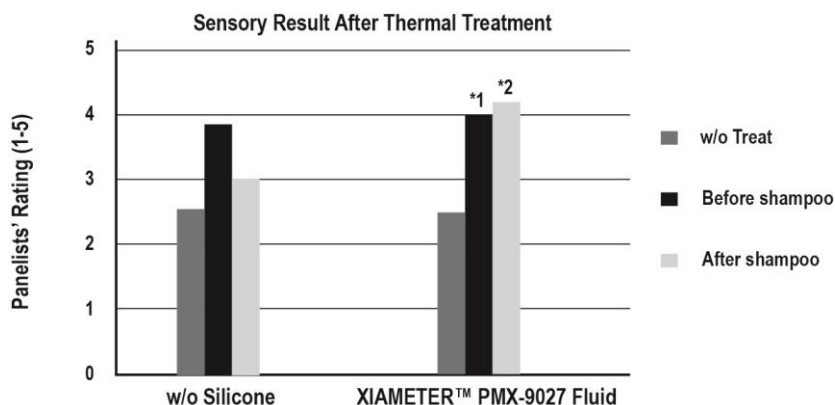


Figure 3: XIAMETER™ PMX-9027 Fluid improves hair sensory if applied before thermal treatment

*1: Different at 95% confidence level compared with non-treated hair before shampoo

*2: Different at 95% confidence level compared with non-treated hair after shampoo

Formulation Tips

Emulsion products: XIAMETER™ PMX-9027 Fluid can be incorporated directly into the oil phase of the formulation. If temperatures above 70°C (158°F) are being used to melt the oil phase, XIAMETER™ PMX-9027 Fluid should be added slowly after the formation of the emulsion and below 60°C (140°F) using a high shear mixer.

Non-emulsion products: It is advisable to add cosmetic ingredients to the silicone and not vice versa as often high molecular weight dimethiconol and silicone elastomers are incompatible with other cosmetic ingredients.

UNRESTRICTED – May be shared with anyone

©™ Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow
XIAMETER™ PMX-9027 Fluid

© 2017–2019 The Dow Chemical Company. All rights reserved.

**Handling
Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

**Usable Life And
Storage**

Product should be stored at or below 25°C (77°F) in original, unopened containers.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health And
Environmental
Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, consumer.dow.com or consult your local Dow representative.

consumer.dow.com

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

