



Technical Data Sheet

XIAMETER™ PMX-0345Z Fluid

INCI Name: Cyclopentasiloxane (and) Cyclohexasiloxane

Features & Benefits

- Volatile carrier
- Compatible with a wide range of cosmetic ingredients
- Excellent spreading
- Non tacky, non greasy feel
- Smooth, slippery feel

Applications

- A carrier fluid to be used mainly in hair care applications to provide excellent spreading and light non tacky, non greasy feel. Combines unique volatility characteristics with slippery and smooth feel.
- Leave on and rinse off hair conditioners and other hair care products.

Typical Properties

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

Test ¹	Property	Unit	Result
CTM 0176	Appearance		Clear
CTM 0004	Viscosity	cSt	4.8
CTM 0021	Flash point- close up	°C	84.7
CTM 0839A	Cyclotetrasiloxane (D4) content	wt%	< 0.1

1. CTM (Corporate Test Method) corresponds to ASTM (American Society for Testing and Materials) standard test methods in most instances. Copies of CTMs are available upon request.

Description

XIAMETER™ PMX-0345Z Fluid is a blend mainly composed of cyclohexasiloxane and cyclopentasiloxane. The product is clear, odorless and volatile.

Based on the sensory evaluation, the sensory attributes of the neat XIAMETER™ PMX-0345Z Fluid is similar with XIAMETER™ PMX-0245 Fluid and XIAMETER™ PMX-0345 Fluid (Figure 1). When used in a simple leave-on hair conditioner, XIAMETER™ PMX-0345Z Fluid provides similar sensory attributes compared with leave-on containing XIAMETER™ PMX-0245 Fluid and XIAMETER™ PMX-0345 Fluid as shown in Figure 2.

The volatility profile of XIAMETER™ PMX-0345Z Fluid is similar to XIAMETER™ PMX-0345 Fluid as shown in Figure 3.

Description (Cont.)

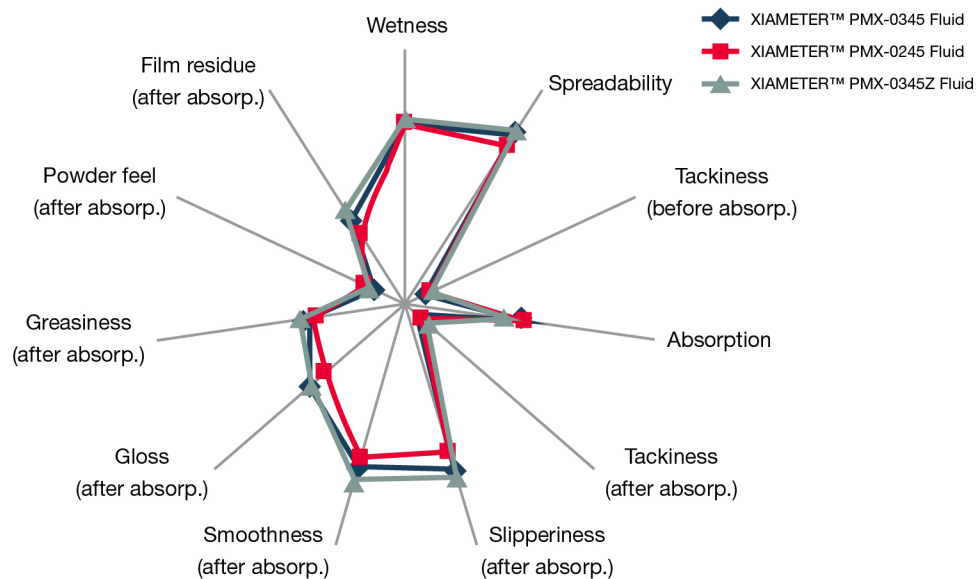


Figure 1: Sensory comparison of pure material

Table 1: Leave-on conditioner prototypes

Ingredients	w/w%	w/w%	w/w%
XIAMETER™ PMX-1501 Fluid	67.5	67.5	67.5
XIAMETER™ PMX-0245 Fluid	32.5		
XIAMETER™ PMX-0345 Fluid		32.5	
XIAMETER™ PMX-0345Z Fluid			32.5

Sensory evaluation result of leave-on conditioner prototypes: no significant difference on the sensory attributes was observed.

Description (Cont.)

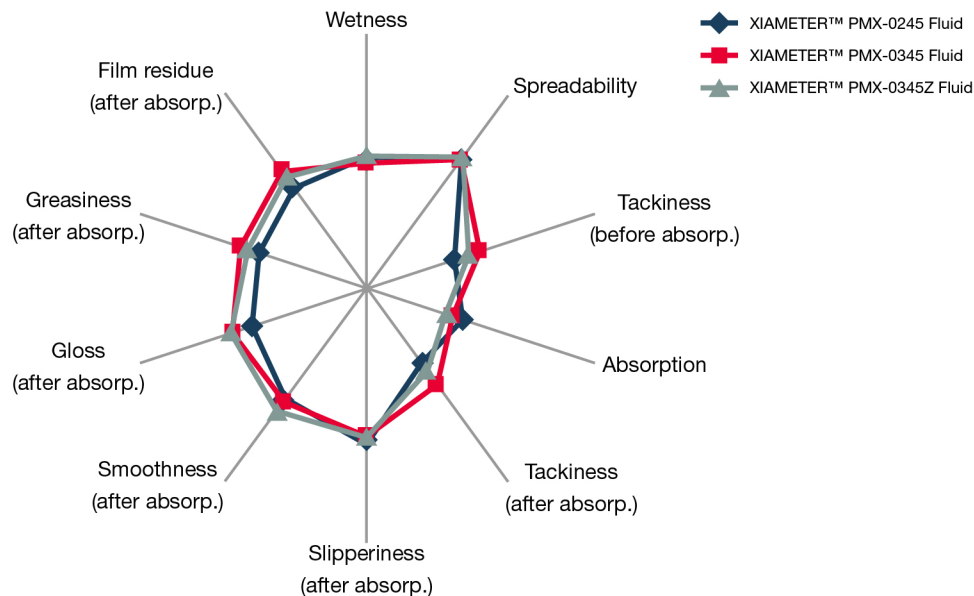


Figure 2: Sensory evaluation for leave-on hair conditioner containing 67.5% of XIAMETER™ PMX-1501 Fluid and 32.5% of volatile fluids.

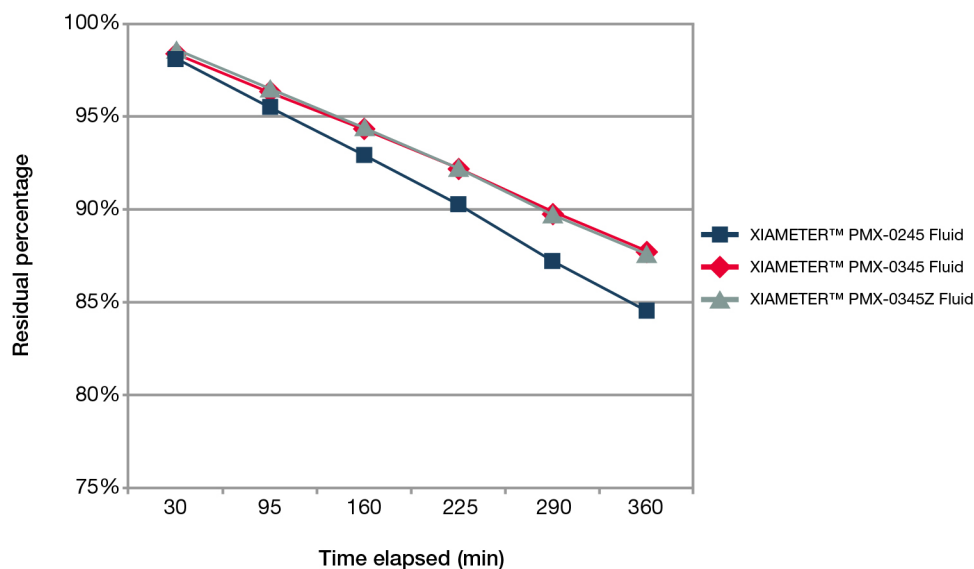


Figure 3: Volatility profile of XIAMETER™ PMX-0345Z Fluid vs XIAMETER™ PMX-0245 Fluid and XIAMETER™ PMX-0345 Fluid at room temperature

How to Use

XIAMETER™ PMX-0345Z Fluid may be used alone or blended with other cosmetic fluids and used as a carrier for variety of cosmetic ingredients.

It features good solubility in ethanol and in many cosmetic solvents.

**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 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. The most up-to-date shelf life information can be found on the Dow website in the Product Detail page under Sales Specification.

Care should be taken when handling volatile fluids at temperatures 10°C below the quoted flash point.

As with any flammable material, containers should be kept tightly closed and away from heat, sparks, open flames, and other sources of ignition.

**Packaging
Information**

This product is available in 195 kg drums and 500 ml sample bottles.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. Not intended for human injection. Not intended for food use.

**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, dow.com or consult your local Dow representative.

**Disposal
Considerations**

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

**Product
Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

Table 2: Compatibility comparison

	XIAMETER™ PMX-0245 Fluid	XIAMETER™ PMX-0345 Fluid	XIAMETER™ PMX-0345Z Fluid
Caprylic/Capric Triglyceride	C ¹	C	C
Jojoba oil	C	C	C
Sunflower oil	C	C	C
Ethanol	C	C	C

1. Mixing ratio: 90% oil / 10% silicone oil; C: compatible (the mixture is clear and transparent)

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