



Technical Data Sheet

XIAMETER™ MEM-7137 Emulsion

A premium, white, pourable silicone emulsion

INCI NAME: Dimethicone (and) Cocamidopropyl Betaine (and) C12-15 Alketh-2 (and) Guar Hydroxypropyltrimonium Chloride

Features & Benefits

- High silicone active emulsion.
- Based on ultrahigh molecular weight polydimethylsiloxane fluid.
- Easy to formulate with.
- Anti-wrinkle for fabric.
- Fabric softness.
- Ease of fabric ironing.
- Superior hair conditioning performance.
- Excellent hair smoothness on dry/wet hair.
- Provides enhanced dry combing and soft feel to hair.

Applications

- Suitable to provide a fabric care benefit for rinse cycle fabric softeners. Based on internal testing results, the use of this product provides a broad range of benefits including anti-wrinkle, softness and ease of ironing when compared to conventional rinse-cycle fabric softener compositions.
- Conditioning 2-in-1 shampoos.
- Rinse-off and leave-in hair conditioners.
- Shower gels.

Typical Properties

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

CTM ¹	Property	Unit	Result
Household and cleaning applications			
	Appearance		Milky cream
	Silicone content	%w/w	65
	pH		5.0–7.0
	Suitable diluent		Water
Anti-wrinkle performance at 3% silicone concentration			
	XIAMETER™ MEM-7137 Emulsion: Quat	Scale ²	1.53:1

1. CTM: Corporate Test Method, copies of CTMs are available upon request.
2. Based on AATCC 124-1992 (Appearance of Fabrics after Repeated Home Launderings) with slightly modified conditions.

Typical Properties (Cont.)

CTM	Property	Unit	Result
Softness performance at 3% silicone concentration			
	XIAMETER™ MEM-7137 Emulsion: Quat	Confidence level %	99
Ease of ironing performance at 3% silicone concentration			
	XIAMETER™ MEM-7137 Emulsion: Quat	Friction coefficient ³	0.09:0.18
Personal Care Applications			
	Appearance		Milky emulsion
	Silicone content	%w/w	65
	Microbiological evaluation	cfu/ml	100 maximum
0208	Non-volatile content (NVC)	%	66–70
0007	pH		5.0–7.0
	Emulsifier type		Non-ionic
0957	Particle size	µm	28–42
0050	Viscosity at 25°C (77°F)	mPa.s	10,000–20,000

3. Based on IEC (International Electrotechnical Commission) 60311 edition 3.2.
Clause 24 - Determination of smoothness of the sole-plate. Again, slightly modified to fit this application.

Description

XIAMETER™ MEM-7137 Emulsion is a 65% emulsion of ultrahigh molecular weight polydimethylsiloxane fluid emulsified in water.

Household and Cleaning Applications

XIAMETER™ MEM-7137 Emulsion is compatible with softener cationic active.

Test Conditions

Asia top loader washing machine under room temp at about 100 ppm Ca+2 & Mg+2 hardness and 1:14 liquid ratio. Diester quat (16% A.I.) softener dosage level is 9.8 g in 26 liters water.

Description

Personal Care Applications

XIAMETER™ MEM-7137 Emulsion provides exceptional smoothness to dry/wet hair. In addition, it also enhances hair softness and dry combing (refer to Figure 1). It is ideal for use in 2-in-1 shampoos, rinse-off and leave-in conditioners and shower gels.

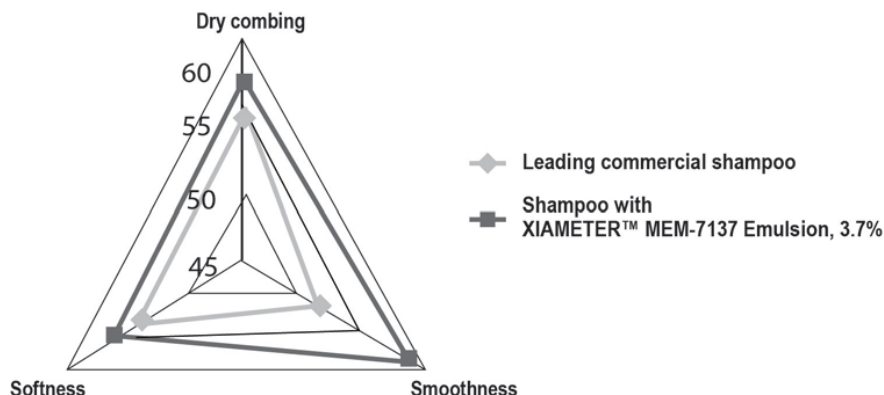


Figure 1: Dry hair sensory comparison.

Method

Paired comparison, 19 panelists

Result

Superior performance to leading commercial product on smoothness (90% confidence).

Comparable performance to leading commercial product on softness and dry combing.

How to Use

Household and Cleaning Applications

XIAMETER™ MEM-7137 Emulsion is easy to incorporate into rinse cycle fabric softener. It is recommended to mix the emulsion with the softener base after the cationic active is solubilized and in particular at the final manufacturing stage at a temperature below 40°C (104°F) without high shear mixing. Recommended addition level of XIAMETER™ MEM-7137 Emulsion to obtain the claimed benefits in dilute softener formulations (4–5% Quats) is 1.5% and 4.6% for concentrated softener formulations (15% Quats).

Personal Care Applications

XIAMETER™ MEM-7137 Emulsion is water dilutable making it easy to formulate with. The recommended usage level is 1 to 5%. It is recommended to add the product below 45°C (113°F) in order to minimize the risk of emulsion instability.

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 32°C (90°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, 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

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