



Technical Data Sheet

XIAMETER™ MEM-1691 Emulsion

INCI NAME: Dimethicone (and) C12-13 Pareth-4 (and) C12-13 Pareth-23 (and) Salicylic Acid

Features & Benefits

- Versatile product
- Very low impact on foam properties
- Improves wet combing
- Skin conditioning

Applications

- Can be incorporated in several types of hair care products such as 2-in-1 shampoos, rinse-off and leave-in conditioners.
- A conditioning additive which improves the combing on wet hair and imparting silkiness to dry hair.
- Can also be used in 2-in-1 shower gels where it helps to improve the skin conditioning during and after the shower.
- Recommended concentration level is 2 to 4%.

Typical Properties

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

Property	Unit	Result
Silicone content	%	50
Internal phase viscosity	mm ² /s	60,000
Color		White
pH		4–6
Suitable diluent		Water
Emulsifier type		Non-ionic
Viscosity	mm ² /s	1,500
Salicylic acid	%	0.2

Description

XIAMETER™ MEM-1691 Emulsion is a 50% non-ionic emulsion of a polydimethylsiloxane having a viscosity greater than 50,000 mm²/s.

Conditioning Benefits

The conditioning benefits of XIAMETER MEM-1691 Emulsion, especially in wet combing, have been demonstrated both in a 2-in-1 shampoo and a rinse-off conditioner. Results are illustrated in Tables 1 and 2.

Table 1:

Combing time for wet hair for 2-in-1 shampoo ref. 25/494.

Time, seconds

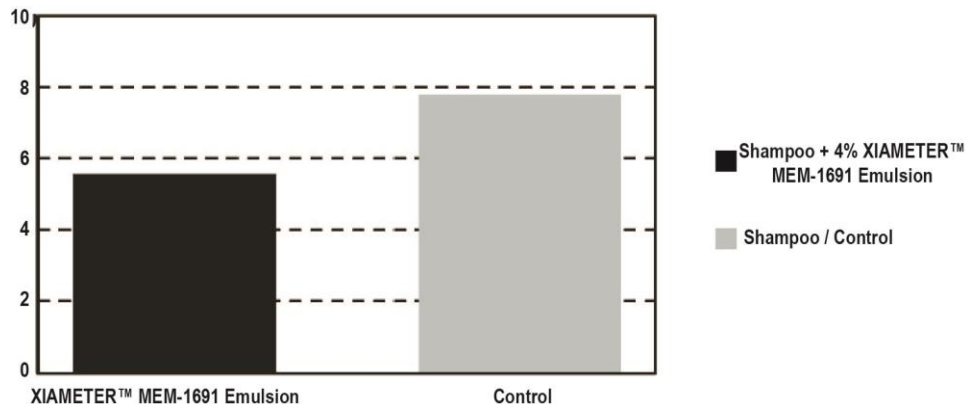
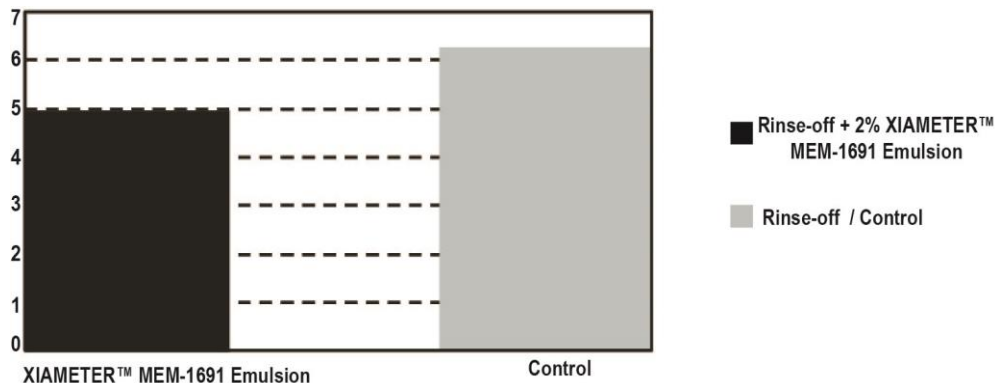


Table 2:

Combing time for wet hair for rinse-off conditioner ref. 44/594.

Time, seconds



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 WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Storage

Product should be stored between 5°C (41°F) and 25°C (77°F) in original, unopened containers.

UNRESTRICTED – May be shared with anyone

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XIAMETER™ MEM-1691 Emulsion

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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, www.consumer.dow.com or consult your local Dow representative.

Formulations

A: 2-in-1 Shampoo, ref. 25/494

Ingredients	Weight %
1. Texapon A 400	30.0
2. Comperlan KD	3.0
3. Carbopol ETD 2020 (sol 2%)	30.0
4. XIAMETER MEM-1691 Emulsion	4.0
5. Preservative	q.s.
6. Perfume	q.s.
7. Water	up to 100

Suppliers	INCI Name
1. Henkel	Ammonium Lauryl Sulphate
2. Henkel	Cocamide DEA
3. Goodrich	Acrylate/C10-30 Alkyl Acrylate
4. The Dow Chemical Company	Dimethicone (and) Laureth-23 and Laureth-4 (and) Salicylic acid

Indicative viscosity: 4350 mm²/s

Procedure

- Heat 1, 2 and 7 to 65°C (149°F) and mix until homogeneous.
- Turn off the heat and allow to cool with agitation.
- Mix 3, 4, 5 and 6.
- When the temperature of (B) is less than 40°C (104°F), add (C) into (B) with strong agitation.
- Adjust pH to 7 with triethanolamine.
- Adjust viscosity with sodium chloride if necessary.

**Formulations
(Cont.)**

B. Rinse-off Conditioner, ref. 44/594

Ingredients	Weight %
1. Natrosol 250 HHR	1.0
2. Cetyl Alcohol	3.0
3. Eumulgin B2	1.5
4. XIAMETER MEM-1691 Emulsion	2.0
5. Preservative	q.s.
6. Perfume	q.s.
7. Water	Up to 100

Suppliers	INCI Name
1. Aqualon	Hydroxyethyl Cellulose
2. Henkel	Cetareth – 20
3. The Dow Chemical Company	Dimethicone (and) Laureth-23 and Laureth-4 (and) Salicylic acid

Procedure

- A. Heat 7 to 75°C (167°F) and disperse 1 into it with strong agitation to ensure complete dispersion.
- B. Melt 2 and 3 together.
- C. Add (B) into (A) and let it cool with agitation.
- D. At room temperature, add 4, 5 and 6 with strong agitation.
- E. Adjust pH to 5.5 with citric acid.

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<http://www.xiameter.com>

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