MANTA

Technical Data Sheet

Version: 1.0

Manta F1006 High Viscosity Dimethicone

Description

Manta F1006 is a series of high-molecular-weight linear siloxane polymers, presenting as highly viscous liquids to paste-like semi-solids.

Optically clear and odorless, this series functions as a top-tier conditioning agent and surface modifier. It offers exceptional oxidative and thermal stability, effectively reducing surface tension while providing a durable, breathable, and highly water-resistant hydrophobic barrier. Characterized by viscosities ranging from 60,000 to 1,000,000 cSt, it is widely recognized as a highly substantive conditioning workhorse, particularly in premium 2-in-1 shampoo systems and intensive hair care formulations.

Typical Physical Properties

Manta Code:	F1006-60000cSt	F1006-100000cSt	F1006-300000cSt	F1006-500000cSt	F1006-1000000cSt
INCI/CTFA	Dimethicone				
Chemical Name:	Polydimethylsiloxane				
CAS NO.:	63148-62-9				
Heating volatilization (%)(150°C, 3HR)	≤ 2.0				
Flash Point (°C)	≥ 315				
Viscosity (cSt, 25°C)	60,000±3,000	100,000 ±5,000	300,000 ±10,000	450,000 ~550,000	900,000 ~1,200,000

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

Features

1. Optically clear and highly transparent, ensuring no impact on formula color.
2. Imparts exceptional softness, moisture retention, and brilliant gloss to hair and skin.
3. Highly breathable and non-occlusive; provides a rich, smooth, but distinctly non-greasy feel.
4. Dramatically improves both wet and dry combability, leaving hair remarkably smooth and manageable.
5. Physiologically inert.
6. Forms a highly substantive, durable protective film with excellent water resistance.

Applications

Manta F1006 is a conditioning ingredient for personal care formulations, including:

1. Hair Care: Premium 2-in-1 shampoos, intensive hair masks, and split-end repair serums. (Ensures excellent lubricity and long-lasting frizz control).

2. Skin Care: Heavy-duty barrier creams, body washes, and moisturizing lotions.
3. Sun Care: Sunscreen oils and lotions (significantly improves wash-off resistance).

How to Use

1. Processing: Can be incorporated directly into the oil phase of cosmetic and personal care formulations.
2. Emulsification: Easily made into Oil-in-Water (O/W) emulsions. For optimal stability, an emulsifier system with an HLB value between 9 and 11 is highly recommended.
3. Synergistic Blending: Due to its high substantivity and viscosity, it is highly recommended to blend Manta F1006 with lower viscosity silicone fluids (e.g., volatile cyclomethicones or low-viscosity dimethicones) to optimize the spreading profile and achieve the ultimate silky feel.
4. Recommended Dosage: 1.0% - 5.0% of the total formulation, depending on the targeted level of conditioning and formulation type.

Packing

In 200L drum, IBC

Safety and Storage

Keep away from heat and open flame. Prevent from the exposure of moisture, acid, alkalis and other impurities. When stored in the original unopened containers, this product has a usable life of 36 months from the date of production. This product is non-hazardous product.

Contact Information

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