MANTA

Technical Data Sheet

Version: 1.0

Manta G700 Silicone Elastomer Gel

Description

Manta G700 is a silicone elastomer paste, featuring a high molecular weight Dimethicone Crosspolymer network swollen in a volatile Cyclopentasiloxane carrier.

Distinguished by its robust cross-linked structure, Manta G700 functions primarily as a rheology modifier and sensory architect. Due to its cross-linked nature, the polymer does not form a true solution but exists as a stable dispersion of swollen particles. When shear stress is applied (during application), these particles align to provide a smooth, non-draggy glide, before the carrier evaporates to reveal a signature powdery-matte finish. It effectively transforms the texture of oils and emulsions into a dry, velvet-like consistency.

Typical Physical Properties

INCI/CTFA	Cyclopentasiloxane (and) Dimethicone Crosspolymer
Chemical Name:	Silicone Elastomer Paste in Volatile Carrier
Appearance	Colorless to slightly yellow transparent to translucent paste
Non-volatile content(%)	≥ 14
Viscosity (mPa·s, S06, 2.0RPM, 25°C)	250,000-580,000

Features

Imparts a velvety, silky-smooth skin feel;
Provides mild sebum absorption for effective oil control;
Thickens the oil phase and is suitable for room temperature (cold) processing;
Effectively reduces the tackiness of cosmetic formulations;
Enhances the sensory profile of volatile cyclic silicones.

Applications

Manta G700 can be used in personal care formulations, including:
Skin Care: Facial creams, serums, and moisturizing lotions;
Sun Care: Sunscreens and after-sun products;
Color Cosmetics: Liquid foundations, makeup primers, and concealers;
Hair Care: Smoothing serums and styling products.

How to Use

Dispersion: Can be directly dispersed into the oil phase. Blending it with dimethicone, cyclomethicone, phenyl trimethicone, fatty acid esters, or hydrocarbons will effectively reduce its initial viscosity. Stir until uniform; no subsequent high-shear mixing is required.

Emulsification: For emulsion formulations, it is recommended to homogenize the oil phase separately prior to emulsification, or slowly add the dispersed oil phase into the batch under continuous stirring. It can also be post-added to the emulsion if the viscosity of the system is sufficient to keep it evenly suspended.
Temperature Control: Any heating operations must be performed in a closed vessel to prevent the volatilization of the cyclopentasiloxane carrier. Processing temperatures should not exceed 60°C.
Recommended Dosage: 1.0% - 20.0% of the total formulation, depending on the desired viscosity and sensory profile.

Packing

In 18kg in 20L, 20kg in 25L

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 24 months from the date of production.

Contact Information

Nanjing Manta New Material Co., Ltd
Add: Room 102-247, Building 17, No. 1 Qiliqiao North Road, Nanjing Area of the China (Jiangsu) Pilot Free Trade Zone, Nanjing, China
Factory: Miaoguan Town Industrial Park, Sishui County, Jining City, Shandong Province, China
Mob: 0086 18962800162
Mail:sales@mantasil.com Web:www.mantasilicone.com