

Cyclic Siloxane Reduction Type Silicone Emulsion

KM-9782, 9783, 9784, 9792, 9793

Below products are silicone emulsion with contents of D₄ · D₅ · D₆ reduced to less than 0.1%.

1 Features

- 1) Less than 0.1% of the contents of D₄ (4-mer), D₅ (5-mer), and D₆ (6-mer) of cyclic siloxanes.
- 2) Equal or better emulsion stability compared to existing emulsion products.
- 3) REACH compliant*

* REACH is a regulation of European Union concerning Evaluation, Authorization and Restriction of chemical substances.

2 Applications

Mold release agents, lubricants, polishing agents, etc. for industrial use and food packaging*.

* Food regulation statuses differ among countries. For further information, please contact your local sales representative.

3 General Properties

Parameter \ Product name	KM-9782	KM-9783	KM-9784	KM-9792	KM-9793
Appearance	Milky-white				
Nonvolatile content 105°C/3h %	Approx. 37	Approx. 37	Approx. 35	Approx. 37	Approx. 37
Base fluid viscosity 25°C mm ² /s	1,000	10,000	1,000	1,000	10,000
Ionicity	Anionic/Nonionic				
For food packaging (reference data)					
Wettability* ¹	Crawling not detected	Crawling not detected	Crawling not detected	Crawling detected	Crawling detected
Cracking* ²	Detected	Detected	Detected	Not detected	Not detected
Stability* ³	Phase separation not detected				
Existing product* ⁴	KM-9737A* ⁵	KM-9738A	KM-9745A	KM-9752	KM-9751

*¹ The presence of the crawling on the OPS sheet was visually confirmed. The emulsion was diluted 20 times by water and applied on the OPS sheet by No.3 wire bar. (Not specific values)

*² The presence of the cracking on the OPS sheet was visually confirmed. The emulsion was diluted 10 times by water and applied on the OPS sheet by gauze.

The OPS sheet was wound around the cylinder with the diameter of 4 cm.

*³ The emulsion was stored at 40°C for 1 month in 100 ml glass bottle, and the nonvolatile content (105°C/3h) of the upper layer and the lower layer was measured.

• Absence of phase separation: non volatile content of upper layer/ non volatile content of lower layer = 0.95 to 1.05

• Presence of phase separation: non volatile content of upper layer/ non volatile content of lower layer = less than 0.95 or not less than 1.05

*⁴ Existing products contain more than 0.1% of each D₄, D₅, and D₆ of cyclic siloxanes. We plan to switch existing products to new products.

*⁵ KM-9737A was discontinued and switched to KM-9782.

4 How to Use

- 1) Stir or shake well before use.
- 2) Water used for dilution should be ion exchange-processed water or soft water.
- 3) The addition of strong acids, strong bases, large amounts of alcohol or mineral salts will cause a drop in emulsion stability.
- 4) If planning to treat a substrate or use with other resins, do a preliminary test beforehand to check for compatibility.
- 5) Do not leave in an open system for a long time because water will evaporate. Also, be sure to promptly clean all equipment used.

5 Handling Precautions

- 1) Close tightly and store in a cool (5–25°C), dark place.
- 2) Freezing of the emulsion may reduce the stability or cause it to separate. Therefore keep it to avoid freezing.

6 Safety and Hygiene

- 1) Wear rubber gloves, safety glasses and other protective gear to prevent contact with the skin and mucous membranes.
In case of skin and mucous membranes contact, wash immediately with soap and water, then flush thoroughly with plenty of running water.
- 2) In case of accidental eye contact, immediately flush with fresh running water for at least 15 minutes and then seek medical attention if necessary.
- 3) Keep out of reach of children.
- 4) Please read the Safety Data Sheet (SDS) before use. SDS can be obtained from our Sales Department.

7 Packaging

1 kg (plastic bottle), 16 kg (square can)

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