



REF FLOMC10-5 / FLOMC10-16

Flocon® TFC Alkaline Membrane Cleaner Instructions for Use



Indications for Use

Flocon® MC10 is a solid alkaline membrane cleaner intended for use in **reverse osmosis (RO) systems** as the **high-pH** cleaning step of a membrane cleaning program for removal of organic foulants, biofilm, colloidal deposits, aluminosilicates (clay), and other particulate matter.

Flocon® MC10 is intended for use as a **membrane cleaner**, in accordance with RPC's designated membrane cleaning applications and maintenance programs for compatible RO systems, and consistent with the recommended uses and restrictions described in the applicable Safety Data Sheet (SDS).

Cleaning Frequency

Membranes should be cleaned per manufacturers recommendations.

Guidelines to consider: When any of the following changes are observed in normalized performance data:

- Permeate flow decreases by 10–15%
- Salt passage increases by 10–15%
- Pressure drop (ΔP) increases by 10–15%

NOTE: *Allowing conditions to deteriorate significantly beyond these values may result in permanent membrane damage.*

Preparation of Cleaning Solution

- Ideally heat CIP tank with permeate water between **35–40°C** and circulate around membranes for **10–15 minutes** while maintaining temperature.
- Prepare CIP solution of Flocon® MC10 at **1–2% wt/vol**. Cleaning solution pH should stabilize around **11.0–11.5**. Caustic can be added to maintain the pH from 11.4 -11.5 if required. Heat to 35°C.

NOTE: *To avoid chemical wastage, only utilize the level of CIP tank that will suffice for recirculation through membranes.*

Cleaning Procedure (Alkaline Clean)

1. Feed the cleaning solution to the vessels at **high flow rates**. High flow flushes out foulants removed from the membrane surface.
2. Measure pH and adjust if necessary. Maintain solution temperature at **35–40°C** and pH at **11.0–11.5**.
3. Recycle around the system for **20–30 minutes**.
4. If the solution shows significant discoloration, discard a portion of solution and prepare fresh solution to prevent possible membrane abrasion.
5. Perform the following regime:
 - Recirculate (low flow) – 30 minutes
 - Soak – 1 hour
 - Recirculate (high flow) – 1 hour
 - Soak – 1 hour
 - Recirculate (high flow) – 1 hour
6. Repeat soak and recirculation cycles at high flow for the total alkaline cleaning duration. Recommended **6–10 hours**, depending on fouling severity and / **or manufacturer's recommendations**.
7. Upon completion, stop recirculation and flush the system with good quality permeate water until natural pH levels are restored.



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Warnings and Cautions

Danger

Causes severe skin burns and eye damage. May cause respiratory irritation.

Do not breathe dust or spray. Wear protective gloves, protective clothing, eye protection, and face protection.

Provide adequate ventilation. Use mechanical ventilation if airborne dust may form.

First Aid Measures

Inhalation: Move person to fresh air and keep comfortable for breathing. Seek medical attention if symptoms persist.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly with water. Seek medical attention.

Skin Contact: Remove contaminated clothing. **Rinse immediately** with plenty of water for at least 15 minutes.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing and seek medical attention.

Storage and Handling

- Store in the original, tightly closed container.
- Store in a dry, cool, well-ventilated area.
- Storage temperature **must not exceed 50°C (122°F)**.
- Protect from freezing and direct sunlight.
- Store away from strong acids and oxidizing agents.
- Do not use carbon steel containers.

Disposal Considerations

Dispose of unused product and spent cleaning solution through a licensed waste contractor in accordance with local regulations.

Transport Information

UN 3262 Corrosive Solid, Basic, Inorganic, N.O.S., Hazard Class: 8, Packing Group: II

Typical Properties

The following properties are typical and should not be considered product specification:

Property	Appearance	Odor	pH (1% solution)	Bulk Density
Typical Value	Off-white granular powder	Characteristic	11.5-12.5	2.0-2.15 kg/L