

RoClean P507 is a high pH powder cleaner developed to remove silt and organic foulants such as colloidal silica, clays, organic color and bacterial slime from spiral wound cellulose acetate elements. This formulation is temperature compensated to ensure that the cleaning solution remains in the effective pH range regardless of variations in solution temperature.

Performance:

RoClean P507 offers an array of performance benefits:

- Compatible with the cellulose acetate membranes of the major manufacturers.
- A customized blend of buffers and other components to dissolve organic foulants and to disperse colloidal particles.
- Superior results to generic cleaners for the removal of organic and colloidal foulants.
- Can be used in conjunction with other applicable cleaners as shown in the Avista cleaner selection guide.
- Highly buffered to resist pH changes during the cleaning process.
- Temperature compensated to maintain optimum pH over a wide temperature range.

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Use Instructions:

Below is a summary of the RoClean P507 cleaning guidelines. For detailed procedures, please consult the Avista technical bulletin entitled "Cleaning of Spiral Wound Membrane Systems".

1. Fill the cleaning tank to the desired volume with RO permeate or DI water. Heat the solution to 50°C as this will dramatically increase the cleaning efficiency. Add the RoClean P507 to the tank at a rate of 8.5 pounds of chemical per 50 gallons of water. Recycle the solution through the cleaning tank to ensure adequate mixing.
2. Recirculate the cleaning solution through each RO system stage, one at a time, for a minimum of 60 minutes at the flow rate recommended by the membrane manufacturer. If that rate is not known, use the guidelines listed below:

Element Diameter, (Inches)	Flowrate per Vessel GPM (LPM)
4	10 (38)
6	23 (87)
8	40 (151)

3. If the membranes are heavily fouled and the recirculated cleaning solution becomes discolored or turbid, discard as much as 15% of the solution volume. Heavily fouled elements may also benefit from a soak period (up to 8 hours).
4. Monitor the pH of the solution during the cleaning process. If the pH remains in the desired range of 7 (at 50°C) and the solution is not turbid, it may be used to clean subsequent stages. In the unlikely event that the pH falls below 7, prepare a new batch and repeat steps 1-4.
5. When the clean is completed, rinse the membranes by recirculating RO permeate through each pressure vessel. The system can then be returned to service.

Dilution:

For moderate to severe fouling, RoClean P507 should be mixed at a rate of 8.5 pounds of chemical to 50 gallons of water. For milder fouling, a dilution of 4.3 pounds of chemical to 50 gallons of water may be sufficient.

Packaging:

RoClean P507 is available in 45 pound pails.

Properties:

Appearance:	White to cream powder
Density:	57 pounds/ft ³
pH	7.0 to 8.0 at 25°C

