



OptiClean™ G+ is a high pH (alkaline) powdered cleaner ideal for removing organic, biological, and particulate matter from all common water treatment membranes. Ideal for periodic maintenance cleans, well water, and other light loading applications. OptiClean™ G+ now features a high ionic solution strength, creating an osmotic effect that pulls permeate back through the membrane lifting deposits from the membrane surface to enhance the cleaning action. The formulation has been optimized to be nonhazardous, simplifying shipping and handling.

### Features / Benefits

- Formulated to dissolve organic precipitants from the membrane surface
- Buffered pH to maintain optimum cleaning performance throughout cleaning cycle
- Classified for use in membrane systems producing drinking water (ANSI/NSF/CAN Standard 60)

### Uses

- For use on reverse osmosis (RO), nanofiltration (NF), ultrafiltration (UF) and micro-filtration (MF) membranes
- To aid in the removal of particulate, organic, microbiological, and other acid insoluble foulants from the membrane surface

### Specifications

Appearance	White powder
pH( 1% solution)	9.00 – 10.00



Certified to  
NSF/ANSI/CAN 60

### Packaging

Pail: 25 lbs/11.36 kg

Pail: 45 lbs/20.45 kg

*For special packaging options, please contact PWT or your local distributor.*

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POWDER MEMBRANE CLEANER

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## General Mixing & Application Instructions for OptiClean™ G+

1. Inspect all cleaning system components to include CIP tank, hoses, and cartridge filters. Flush or replace if necessary. Fill cleaning tank with RO permeate or DI water. Turn on agitator or tank recirculation pump.
2. Slowly add OptiClean™ G+ to cleaning tank (2 pound [0.9 kg] of OptiClean™ G+ for every 12 gal [45 L] of water) and mix thoroughly. The solution pH should match product specification. If necessary, adjust pH with a membrane-approved chemical such as caustic, citric, sulfuric, or hydrochloric acid. The solution should be heated up to 45°C to improve cleaning efficacy.
3. Circulate solution in the same direction as the feed flow. Typical circulation times are 30-90 minutes.\* PWT recommends cleaning each stage of the system separately. Maximum flow rate per pressure vessel is 40 gpm (152 Lpm) for 8-inch elements and 10 gpm (38 Lpm) for 4-inch elements. Maximum pressure for cleaning is 60 psig (4.2 kg/cm<sup>2</sup>).
4. In cases of heavy fouling, divert the first 10-20% of cleaning solution to drain to prevent re-deposition of removed solids.
5. Rinse with RO permeate before returning system to service. When returning unit to service, divert product water to drain until any residual cleaning solution has been rinsed from system.

\*Depending on the nature of the fouling, a soak period may be necessary for optimum results. Please contact PWT or your local distributor for custom cleaning procedure, or consult PWT's Technical Bulletin 503 for further cleaning recommendations.

## ProDose XPRT™ – Scaling Prediction Software

ProDose XPRT™ uses the most accurate scaling prediction calculations available to accurately determine effective antiscalant dosage, and cleaning chemical usage. The user can enter multiple cases to study various operating conditions, directly enter concentrate analysis, and select the best PWT product and dosage for the application.

*ProDose XPRT™ is available upon request only. Please contact your PWT representative for more information.*

The screenshot shows the PWT ProDose XPRT software interface. At the top, there are several tabs: UNITS (US), TEMPERATURE (Fahrenheit), PERMEATE FLOW (81.00), RECOVERY (75.0 %), ANTISCALANT (SpectraGuard Liquid), DOSAGE (2.95 PPM), SOURCE (Well Water), PROJECT NAME (Project 1), and CASE (1). The main interface is divided into several sections:

- PROJECT INFORMATION:** CLIENT NAME: City of San Diego, PROJECT NAME: Project 1, LOCATION: [empty], PREPARED BY: [empty], DATE: 5/1/2016, WATER TYPE: Well Water.
- MEASUREMENTS:** PRESET UNITS: CGS, Metric, U.S. (selected); TEMPERATURE: Deg F; FLOW RATES: Gal/min; MASS UNITS: lb. An "Enter" button is present.
- TOTAL CASES (1 AVAILABLE):** A table with columns "Cases" and "Modified Date". The table contains one row: Case 1, Modified Date 5/27/2016.
- COMMENTS (OPTIONAL):** A large text area for entering comments.
- Selected Case Description:** A text area for describing the selected case.



PWT Headquarters & Manufacturing  
1048 La Mirada Court, Vista, California 92081

Toll-Free: 800.914.9072 | Direct: 760.639.4400 | Fax: 760.639.4439  
Email: sales@pwtchemicals.com | www.pwtchemicals.com