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Warranty compliance terms for spiral wound membrane elements

1. JSC “RM Nanotech” provides warranty on the materials, workmanship, and performance of its spiral wound membrane elements¹, provided the requirements of operating manual and JSC “RM Nanotech” recommendations (as per published Technical service bulletins (TSB) of JSC “RM Nanotech”) are followed as per the following provisions:

2. Storage warranty period of wet membrane elements is 6 months from the date of shipment subject to follow membrane elements storage procedures (see TSB-108).

Storage warranty period of wet membrane elements depending on the temperatures is provided in chart 1.

Storage temperature, °C	5-15	16-35	More than 35
Storage warranty period of wet membrane elements	6 months	3 months	1 month

Storage period for wet membrane elements shouldn't exceed 12 months subject to follow procedures described in TSB-108.

3. Storage warranty period of dry membrane elements is 12 months from the date of shipment subject to follow membrane elements storage procedures (see TSB-108).

Storage period for dry membrane elements shouldn't exceed 18 months subject to follow procedures described in TSB-108.

Storage warranty period of dry membrane elements depending on the temperatures is provided in chart 2.

Storage temperature, °C	5-15	16-35	More than 35
Storage warranty period of wet membrane elements	6 months	3 months	1 month

4. JSC “RM Nanotech” warrants the performance of its elements during 12 months provided that new elements were run into operation not later than 6 months from the date of shipment and subject to follow operation manual, instructions on operation start up and shut down of the units with membrane elements (TSB-101).

5. JSC “RM Nanotech” provides a warranty on materials, workmanship, and performance of its spiral wound reverse osmosis elements when installed and operated in accordance with current operational manual and JSC “RM Nanotech’s” TSBs. JSC “RM Nanotech’s” obligation under this warranty is limited to the repair or, at JSC “RM Nanotech’s” discretion, replacement of any element which, when examined by JSC “RM Nanotech”, appears to be defective within this warranty.

¹ Elements used for removal of sulfates, for effluent waters cleaning as well as used in food and dairy industry are not covered by this warranty.

6. JSC “RM Nanotech” warrants that elements supplied to the Buyer have the initial minimum permeate flow and initial minimum salt rejection as specified in catalogues and performance passports of the membrane elements. These parameters are determined under standard test conditions specified by JSC “RM Nanotech”. Flow of each single element in a lot may vary +15%². Nominal rejection of dry 1812, 2521, 2540 membrane elements is achieved after 100 hours of continuous operation on test solution. Nominal rejection of dry 4040 and 8040 membrane elements is achieved not later than 48 hours of continuous operation on test solution. Nominal rejection of wet 4040 and 8040 membrane elements is achieved not later than 2 hours of continuous operation on test solution.

7. Buyer bears responsibility for the spiral wound membrane elements maintenance during transportation, storage and installation in the pressure vessels. The customer’s failure to follow recommendations for transportation, storage (TSB-108) and installation in pressure vessels (TSB-109) may result in withdrawal of the manufacturer’s warranty obligations.

8. Buyer bears responsibility for the use of chemicals not recommended for operation with membrane elements. End-user disregard of chemicals not coordinated with membrane elements manufacture or reverse osmosis system manufacture will result in complete withdrawal of warranty obligations.

9. Buyer bears responsibility to provide end-users with the appropriate operational manuals, to instruct system operators and service personnel, to provide possibility of the appropriate cleaning and diagnostic procedures.

10. An element should be washed from the preservatives for at least 1 hour at the first launch. A report should be prepared based on the washing results. The following data should be summarized in operational report after 2 hours of the membrane unit operation: feed pressure, concentrate and filtrate pressure, pressure drop in the unit and at all stages, feed water/concentrate/permeate flow, feed water and permeate analysis. All initial parameters of the unit should be sent to the manufacturer of the membrane elements. Failure to provide such data of the first launch may result in withdrawal of the manufacturer’s warranty obligations.

11. Buyer should make sure that operational characteristics of the membrane system are regularly recorded and analyzed. This information should be accessible for JSC “RM Nanotech” and membrane elements supplier in case if a claim for compensation will be pursue in accordance with the warranty. Refusal to provide to JSC “RM Nanotech” a free access to the operational characteristics of the membrane system where membrane elements made by JSC “RM Nanotech” are installed will result in complete withdrawal of warranty obligations except those for materials and components.

² Variation of flow rate should be checked in respective specification or elements technical passport

12. JSC “RM Nanotech” reserves the right to inspect supposedly defected membrane elements and membrane units at the facility of End-user or to request buyer to test and send results back to JSC “RM Nanotech”.

13. Membrane elements can be returned not later than 90 days since delivery only if they remained unused and are in original manufacture’s packaging otherwise it can be refused or additional fees will be required to restore ready-for-sale condition. Customer should receive consent to return elements before sending elements for warranty inspection. Transportation fees to the manufacturer’s location for the returned membrane elements are covered by sender, JSC “RM Nanotech” will cover expenses for the transportation to the buyer of the elements replaced under the warranty. Elements should be kept moist and clean at all the time; elements should be placed in a moisture proof packaging before return.

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