

**LANXESS Corporation Extended Manufacturer’s Warranty
for LEWABRANE® Reverse Osmosis (RO) Membrane Elements**

LANXESS Corporation (“LANXESS”) hereby grants to the commercial or industrial end user of a LEWABRANE® RO membrane element (“RO-ELEMENT”), without prejudice to any statutory or contractual claims the end user may bring against the vendor, a supplementary manufacturer’s warranty according to the following terms and conditions:

1. Defects in Material and Workmanship Warranty

Warranty	1.1 LANXESS warrants according to the terms and conditions set forth below that its RO-ELEMENTS are free from defects in material and workmanship.
Warranty Period	1.2 The period for raising a claim is 12 months from the date of delivery and receipt of the RO-ELEMENT by end user. The final date a warranty claim may be made under 1.1 above is at the latest after 18 months from the delivery of the RO-ELEMENT ex LANXESS factory. Work done under the warranty shall not extend or renew the duration of the warranty period for the repaired or replaced device.
Available Remedy	1.3 The defect, which LANXESS has determined in its sole discretion falls under this warranty, shall be remedied in such a way as determined by LANXESS in its sole discretion, and shall be limited to either the repair of the defective RO-ELEMENT or the replacement of the defective RO-ELEMENT with a functional one. LANXESS reserves the right to replace the defective RO-ELEMENT with a functionally compatible successor model. Replaced RO-ELEMENTS will become the property of LANXESS.
Scope	1.4 The warranty includes LANXESS expenditures for material and labor for the remedial actions as well as proven costs for returning the defective RO-ELEMENT to LANXESS or costs of disposal for the defective RO-ELEMENT (in consultation and upon the discretion of LANXESS), and the transport costs back to the end user. All other costs, such as costs for disassembling the defective RO-ELEMENT or the installation of repaired or new RO-ELEMENTS, are not included under the warranty and are expressly excluded.
Sole Remedy	1.5 Such repair or replacement shall be the end user’s sole remedy under this warranty. Further claims on the basis of this warranty, in particular to any kind of damages or compensation for expenses, unless explicitly included according to the foregoing, shall be excluded. 1.6 THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES ARISING BY OPERATION OF LAW, TRADE OR COURSE OF DEALING INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OR CONDITIONS OF TITLE, NONINFRINGEMENT, MERCHANTABILITY, FITNESS OR SUITABILITY FOR A PARTICULAR PURPOSE, USE OR APPLICATION. LANXESS SHALL HAVE NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR DAMAGE OR INJURY TO PERSONS OR PROPERTY OR FOR OTHER LOSS OR INJURY RESULTING FROM ANY CAUSE WHATSOEVER ARISING OUT OF OR RELATED TO THE RO-ELEMENT, INCLUDING, WITHOUT LIMITATION, ANY DEFECTS IN THE RO-ELEMENT. LANXESS TOTAL LIABILITY TO THE END USER (REGARDLESS OF THE NATURE OF THE CLAIM) SHALL BE LIMITED TO THE TOTAL PURCHASE PRICE OF THE RO-ELEMENT PURCHASED FROM LANXESS BY END USER. UNDER NO CIRCUMSTANCES SHALL LANXESS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY TYPE, INCLUDING WITHOUT LIMITATION RELATING TO LOSS OF USE, LOSS OF PROFITS, LOSS OF PRODUCTION OR LOSS OF REVENUES.

2. Initial Performance Warranty

Warranty	2.1 LANXESS warrants according to the terms and conditions set forth below that its RO-ELEMENTS will have an initial minimum product flow rate and minimum salt rejection as stated in LANXESS' data sheets for the corresponding models published on the website www.lewabrane.com when tested under the reference conditions as specified on such data sheets.
Warranty Conditions	2.2 This limited warranty, however, only applies if <ol style="list-style-type: none">the RO-ELEMENT was purchased and started up within 6 months from the delivery ex LANXESS factory;the data proving the initial performance were taken after the first 24 hours, but in any case within 36 hours as of system start-up;the RO-ELEMENT was stored in a manner consistent with the storage guidelines included in the technical documentation (available at www.lewabrane.com).
Warranty Period	2.3 The period for raising a claim is one month from the date of system start-up of the RO-ELEMENT. The final date a warranty claim may be made is at the latest after 18 months from the delivery of the RO-ELEMENT ex LANXESS factory. Work done under the warranty shall not extend or renew the duration of the warranty period for the repaired or replaced device.
Remedy, Scope, Sole Remedy	2.4 Sections 1.3 through 1.6 shall apply accordingly in relation to the Initial Performance Warranty.

3. Pro Rata Performance Limited Warranty

Warranty	3.1 During the first three years of operations of the RO-ELEMENTS, LANXESS warrants according to the terms and conditions set forth below that the RO-ELEMENTS will operate at the following performance levels: <ul style="list-style-type: none">a maximum salt passage that will not exceed 1.35x of the specified maximum value;a minimum permeate flow of 70% of the specified initial average flow, when operated under the reference conditions as specified on the data sheets published by LANXESS (www.lewabrane.com).
Available Remedy	3.2 LANXESS will, upon acceptance of loss of performance during the warranty period, provide remedy in such a way that it will credit 1/36 of the original purchase price of the RO-ELEMENT for each unused month of the 3-year warranty period. This credit may only be applied towards the purchase of a replacement RO-ELEMENT at the current prevailing RO-ELEMENT element price. <p>Such credit towards the purchase of a replacement RO-ELEMENT shall be the end user's sole and remedy under this warranty. THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES ARISING BY OPERATION OF LAW, TRADE OR COURSE OF DEALING INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OR CONDITIONS OF TITLE, NONINFRINGEMENT, MERCHANTABILITY, FITNESS OR SUITABILITY FOR A PARTICULAR PURPOSE, USE OR APPLICATION. LANXESS SHALL HAVE NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR DAMAGE OR INJURY TO PERSONS OR PROPERTY OR FOR OTHER LOSS OR INJURY RESULTING FROM ANY CAUSE WHATSOEVER ARISING OUT OF OR RELATED TO THE RO-ELEMENT, INCLUDING, WITHOUT LIMITATION, ANY DEFECTS IN THE RO-ELEMENT.</p>

LANXESS TOTAL LIABILITY TO THE END USER (REGARDLESS OF THE NATURE OF THE CLAIM) SHALL BE LIMITED TO THE TOTAL PURCHASE PRICE OF THE RO-ELEMENT PURCHASED FROM LANXESS BY END USER. UNDER NO CIRCUMSTANCES SHALL LANXESS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY TYPE, INCLUDING WITHOUT LIMITATION RELATING TO LOSS OF USE, LOSS OF PROFITS, LOSS OF PRODUCTION OR LOSS OF REVENUES.

4. Warranty Exclusions

General Exclusions

4.1 The end user is only entitled to raise claims under each of the warranties (Sections 1 through 3) (together referred to as the “Warranties”) above if the claims are NOT due to the following types of damages:

- transport damages,
- use-related or other natural wear of mechanical or other parts,
- damages incurred as a result of non-compliance with LANXESS storage, installation, operating and handling instructions as detailed in LANXESS technical documentation (available at www.lewabrane.com),
- damages incurred as a result of non-compliance with good engineering practices,
- damages incurred as a result of improper use,
- damages caused by violence, external influences or foreign substance, power failures, force majeure and other events beyond LANXESS control.

Exclusions for Pro Rata Performance Limited Warranty

4.2 The end user is only entitled to raise claims under the Pro Rata Performance Limited Warranty (Section 3) if the end user can demonstrate to LANXESS satisfaction that the following requirements and conditions during the operation, cleaning, and storage of the RO-ELEMENTS have been complied with:

System Design and Technical Documentation

- a) The design parameters (array, recovery, etc.) plus instrumentation and other components of the system in which the RO-ELEMENTS are employed shall be consistent with sound engineering practice for the water treatment industry. LANXESS reserves the right to review the system design.
- b) The end user of the RO-ELEMENTS is fully responsible for adequate technical documentation and procedures to support the operation of the RO system, including system operating and maintenance manuals, operator and supervisor training; ability to perform cleaning and other performance restoration, and diagnostic procedures. Some of this information is available at www.lewabrane.com.
- c) The end user of the RO-ELEMENTS shall ensure that frequent, adequate system and subsystem normalized performance data are routinely recorded in a systematic format, and reviewed by appropriately knowledgeable personnel. This information must be available to LANXESS in the event a claim is made against LANXESS pursuant to this warranty.

Feedwater and Pressure

- d) Feedwater temperature shall be less than 113°F (45°C). The feedwater SDI to the RO system (15 min., 30 psi) shall be less than 5.0. Feedwater shall contain no strong oxidizing agents like ozone, permanganate, or similar oxidants.
- e) The RO-ELEMENTS shall not be exposed to a pressure greater than 4.1 MPa (600 psi) for brackish water application, unless otherwise stated in the product specification. The Backpressure (defined as a condition where permeate pressure exceeds concentrate pressure) shall not exceed 5 psi at any time. The RO-ELEMENTS shall not be exposed to

	<p>hydraulic transients (water hammer).</p>
<p>Maintenance and Cleaning</p>	<p>f) The RO-ELEMENTS shall be maintained in a clean condition, unfouled by particulate matter or precipitates or biological growth. If scaling or fouling should occur, or if normalized element flow should decline by 10 percent, cleaning procedures must be conducted to restore element performance. These cleaning procedures must be consistent with published LANXESS protocols for the cleaning of RO-ELEMENTS, and be clearly documented in order to preserve the validation of the 3-Year Pro Rata Performance Limited Warranty. The RO-ELEMENTS shall not be exposed during cleaning, or in storage, to a pH less than 1 nor greater than 12.</p>
<p>Exposure, Foulants and Chemicals</p>	<p>g) The RO-ELEMENTS must be keep moist (wetted) at all times. The RO-ELEMENTS must not be exposed to pH conditions less than 2.0 nor greater than 11.0 during continuous operations (non-cleaning operations).</p> <p>h) The RO-ELEMENTS must not be fouled by any kinds of colloidal matter, precipitated solids, suspended solids, organic matters, inorganic scale or chemicals influencing the element performance negatively.</p> <p>i) The RO system operator must provide adequate provisions to protect against microbiological contamination in the system design, as well as in all operating and maintenance procedures. These provisions must be documented, and available to LANXESS.</p> <p>j) The RO-ELEMENTS must not be exposed to surfactants or chemicals which are non-compatible during membrane cleaning. The end user is fully responsible for the effects of non-compatible chemicals on RO ELEMENTS.</p>

5. Further Conditions for Claims under the Warranties

<p>Timing and Substantiation of Claim</p>	<p>5.1 The warranty claim under each of the Warranties has to be made without undue delay after detection of the defect and within the respective warranty period. When making the claim, the original bill of lading and receiving document for the RO-ELEMENT, including the date of receipt and the name and quantity of the product, has to be presented, together with substantial details in writing and/or photographic evidence as to the nature of the defect.</p>
<p>Full and Complete Details on Operational Parameters</p>	<p>5.2 In case of claims under the Initial Performance Warranty (Section 2) or under the Pro Rata Performance Limited Warranty (Section 3), failure or refusal to provide LANXESS with full and complete details regarding the operational parameters for the RO-System in which the RO-ELEMENT was installed (in particular permeate flow and quality, recovery rate as well as feed water composition, pressure and temperature), and/or to allow LANXESS access to the operational site to verify performance data, will render such warranty null and void.</p>
<p>Address for Claims</p>	<p>5.3 All claims under the Warranties shall be addressed to:</p> <p>LANXESS Corp. 200 Birmingham Road Birmingham, New Jersey 08011, U.S.A</p>

Attention: Firuza Mir, Regional Business Unit Head

Email to: firuza.mir@lanxess.com

6. Reimbursement

If a claim is not covered under any of the Warranties, LANXESS reserves the right to invoice the end user for all expenses it has incurred relating to the replacement or repair of the RO-ELEMENT

7. Reservation

The performance by LANXESS under any of the Warranties by LANXESS is subject to the proviso that there are no conflicting prohibitive national or international foreign trade regulations or trade embargos and/or other sanctions.

If any provision of this warranty document is held unenforceable or illegal by a court or other body of competent jurisdiction, such provisions shall be modified to the minimum extent required such that the rest of this warranty will continue in full force and effect.

8. Applicable Law

The Warranties shall be construed, interpreted and controlled by the laws of the Commonwealth of Pennsylvania, and all claims arising out of or related to the parties' obligations created by this AGREEMENT, whether sounding in contract, tort or otherwise, shall be governed and decided pursuant to the laws of the Commonwealth of Pennsylvania, including Pennsylvania's statutes of limitations but not including its choice of laws rules.

Any legal suit, action or proceeding in any matter arising out of or in relation to or based upon this AGREEMENT shall be instituted in the United States District Court for Western District of Pennsylvania (the "Federal Court"), except insofar as the Federal Court may not possess subject matter jurisdiction, in which event the dispute shall be similarly determined by the Court of Common Pleas of Allegheny County, Pennsylvania ("State Court"). Each of the parties waives, to the fullest extent it may effectively do so, any objection which it now or later may have to the jurisdiction of or the laying of venue in the Federal Court (or the State Court to the extent that the Federal Court does not possess subject matter jurisdiction), including any objection based upon inconvenient forum. The parties agree that a final judgment in any such suit, action or proceeding may be enforced in other jurisdictions as provided by law. The parties waive trial by jury.