

CSM[®] REGIONAL PRESENCE



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Toray Advanced Materials Korea Inc. (Head Office)

7, Magokdong-ro 10-gil, Gangseo-gu, Seoul 07790,
 Republic of Korea
 Tel. +82-2-3279-1000 Fax. +82-2-3279-1411

Toray Membrane USA, Inc. (TMUS)

13435 Danielson Street, Poway, CA 92064, U.S.A.
 Tel. +1-858-218-2360 Fax. +1-858-218-2380

Toray Asia Pte. Ltd. (TAS)

111 Somerset Road, #14-22, Singapore 238164,
 Republic of Singapore
 Tel. +65-8125-0490 Fax. +65-6226-0509

TAK Membrane (Tianjin) Co., Ltd. (TAMT)

No. 2. Keyuan 5th TEDA(Jinnan) Micro-electronics Industrial
 Area Balitai-Zhen Jinnan-District, Tianjin, China 300350
 Tel. +86-15501009939 Fax. +86-22-26120588

Toray Membrane Europe AG (TMEU)

Grabenackerstrasse 8b, CH-4142 Münchenstein 1, Switzerland
 Tel. +41-61-415-8710 Fax. +41-61-415-8720

Toray International India Pte. Ltd. (TIID)

Unit 504, 5th Floor, Vatika City Point, M.G. Road, Gurgaon,
 Haryana, 122002, India
 Tel. +91-124-4128450 Fax. +91-124-4128455

TORAY

Toray Advanced Materials Korea Inc.

For custom solutions please contact your nearest CSM office
 or representative. CSM membranes are used in residential,
 commercial, industrial and municipal applications.

Visit our website : www.csmfilter.com

The Right Fit

CSM[®]

Product Catalog for Residential RO/NF/UF Elements



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High Performance Residential RO Elements

CSM Residential(Household) Elements can eliminate substances larger than 0.0001µm. Remove turbidity, including microbes and virtually all dissolved substances, heavy metal ions, bacteria & viruses in the water.

Model Name	Permeate Flow Rate(GPD)	NaCl Rejection(%)	Diameter(inch/mm)	Length(inch/mm)
RE1810-80	80	98	1.8 / 46	10 / 254
RE1812-50	70	98	1.8 / 46	12 / 305
RE1812-60	80	98	1.8 / 46	12 / 305
RE1812-80	100	98	1.8 / 46	12 / 305
RE2012-100	110	98	2.0 / 51	12 / 305
RE2012-150	150	98	2.0 / 51	12 / 305
# Test Conditions	NaCl 200 mg/L, Pressure 60 psi, Temperature 25°C, pH 6.5-7.0, Recovery 15%			

Low Pressure Residential RO Elements

CSM Low Pressure Residential(Household) Elements can offer increased ENERGY SAVING & applied to "Pumpless Water Purification System"(NO pump to create net driving pressure).

POU systems using low pressure RO elements require less than 60 psi.

POE systems using low pressure RO elements require less than 150 psi.

Model Name	Permeate Flow Rate(GPD)	NaCl Rejection(%)	Diameter(inch/mm)	Length(inch/mm)
RE1812-LP	30	93	1.8 / 46	12 / 305
RE2012-LP	50	93	2.0 / 51	12 / 305
RE2012-LPF	60	93	2.0 / 51	12 / 305
# Test Conditions	NaCl 100 mg/L, Pressure 20 psi, Temperature 25°C, pH 6.5-7.0, Recovery 15%			

Ultra-High Flow Residential RO Elements

CSM Ultra-High Flow Residential(Household) Elements can apply to a TANKLESS WATER PURIFIER by getting a high water permeability even in a small membrane-effective area.

Model Name	Permeate Flow Rate(GPD)	NaCl Rejection(%)	Diameter(inch/mm)	Length(inch/mm)	Test Cond.
RE2012-400	400	96	2.0 / 51	12 / 305	03
RE2812-300	350	97	2.9 / 75	12 / 305	01
RE2812-450	450	96	2.9 / 75	12 / 305	01
RE3012-500	500	97	3.0 / 75	12 / 305	04
RE3012-800	800	96	3.5 / 89	12 / 305	04
RE3512-TK	600	95	3.5 / 89	12 / 305	02
RE3512-900	900	95	3.5 / 89	12 / 305	04

Test Conditions
 01 NaCl 200mg/L, Pressure 60 psi, Temperature 25°C, pH 6.5-7.0, Recovery 15%
 02 NaCl 200mg/L, Pressure 60 psi, Temperature 25°C, pH 6.5-7.0, Recovery 30%
 03 NaCl 200mg/L, Pressure 80 psi, Temperature 25°C, pH 6.5-7.0, Recovery 30%
 04 NaCl 200mg/L, Pressure 80 psi, Temperature 25°C, pH 6.5-7.0, Recovery 40%



Certified to NSF/ANSI 58

Membrane Type Thin-Film Composite
 Membrane Material RO & NF-Polyamide(PA), UF-Polysulfone
 Element Configuration Spiral-Wound, Tape Wrapping



High Rejection & High Recovery Residential RO Elements

High rejection characteristics at high recovery conditions. Possible to operate water purifier at a high recovery conditions. Achieved better membrane life with a salt rejection.

Model Name	Permeate Flow Rate(GPD)	NaCl Rejection(%)	Diameter(inch/mm)	Length(inch/mm)
RE1812-HR+ (#1)	80	99.0	1.8 / 46	12 / 305
(#2)	105	96.0	1.8 / 46	12 / 305
RE2812-HR+ (#1)	300	99.0	2.9 / 75	12 / 305
(#2)	400	96.0	2.9 / 75	12 / 305
#1 Test Conditions	NaCl 200 mg/L, Pressure 60 psi, Temperature 25°C, pH 6.5-7.0, Recovery 15%			
#2 Test Conditions	NaCl 200 mg/L, Pressure 80 psi, Temperature 25°C, pH 6.5-7.0, Recovery 60%			

Nanofiltration Residential Elements

Nanofiltration(NF) Elements have pore sizes ranging from 0.001 to 0.01µm. Remove all viruses and bacteria, most organic molecules(TOC), and nearly all multivalent ions.

NF Elements is ideal for water softening purposes because it removes divalent ion that causes hard water(e.g. Mg²⁺, Ca²⁺) and lets monovalent ions permeate through.

Model Name	Permeate Flow Rate(GPD)	NaCl Rejection(%)	MgSO ₄ Rejection(%)	Diameter(inch/mm)	Length(inch/mm)
NE1812-70	90	40 - 70	95	1.8 / 46	12 / 305
# Test Conditions	NaCl 250 mg/L, Pressure 60 psi, Temperature 25°C, pH 6.5-7.0, Recovery 15% MgSO ₄ 250mg/L, Pressure 60 psi, Temperature 25°C, pH 6.0-7.0, Recovery 15%				

Ultrafiltration Residential Elements

Ultrafiltration(UF) Elements have pore sizes ranging from 0.01 to 0.1µm. Remove bacteria and most viruses, colloids, turbidity and silt.

Model Name	Permeate Flow Rate(GPD)	Molecular Weight Cut-Off(MWCO)	Diameter(inch/mm)	Length(inch/mm)
UE1810	200	100K	1.8 / 46	10 / 254
UE2010	450	100K	2.0 / 51	12 / 305
# Test Conditions	Pure Water(2MΩ), Pressure 20 psi, Temperature 25°C, pH 6.5-7.0, Recovery 100%			

Chlorine Resistant Residential RO Elements

CSM Chlorine Resistant Membrane(CRM) has 4 times the endurance to chlorine than standard RO. CSM CRM simplifies RO systems by reducing the need for a Pre & Post Carbon Filters.

Model Name	Permeate Flow Rate(GPD)	NaCl Rejection(%)	Diameter(inch/mm)	Length(inch/mm)
RE2812-CE	220	97	2.9 / 75	12 / 305
# Test Conditions	NaCl 200 mg/L, Pressure 60 psi, Temperature 25°C, pH 6.5-7, Recovery 15%			