

Excell**Ultra™** UF

Ultrafiltration Membranes

SnowPure's Excell**Ultra**™ UF membranes are uniquely designed for pretreatment to RO membranes, and for final filtration of ultrapure water. These proprietary membranes are available only from SnowPure.

Excell**Ultra™ UF** membranes can be used to:

- ♦ Low fouling pretreatment RO feedwater
- ♦ Polishing of Ultrapure water
- ◆ Custom membranes for custom applications

ExcellUltra™ UF membranes are available in spiral-wound form, with or without our unique "low pressure drop" UF Vessel. Spiral UF is strong, and avoids the weak PVDF Hollow Fiber breakage problem. For fouling surface waters, spiral-wound UF modules with parallel spacer construction are low pressure drop and easy to clean.



	SXU-R	SXU-T	SXU-V
Material	PES	Hydrophilic PSO	PVDF
Suitability	Proteins	RO Pretreatment	Oily Waters
MW Cutoff*, Daltons	10,000	50,000	300,000
Nominal Operating Pressure** PSI (MPa)	20-40 (0.2-0.3)	10-30 (0.1-0.2)	10-30 (0.1-0.2)
Nominal Operating Flux*** GFD (LMH)	10-25 (15-40)	10-25 (15-40)	5-20 (15-40)



- * tested under ideal standard conditions
- ** pressures depend highly on UF system hydraulics
- *** recommended flux depends on application

Membrane Parameters	SXU-R	SXU-T	SXU-V
Operating Flux, GFD (LMH)	10-25 (15-40)	10-25 (15-40)	5-20 (8-35)
Maximum Operating Pressure, psi (MPa)	200 (14)	200 (14)	100 (10)
Typical Operating Pressure, psi (MPa)	20-40	10-30	10-30
	(0.2-0.3)	(0.1-0.2)	(0.1-0.2)
Maximum Temperature, C	50	50	50
Operating pH range (recommended)	4-11	4-11	4-10
Cleaning pH range (limits)	1-11.5	1-11.5	1-11

SXU-R is an asymmetric UF membrane made with **PES** (polyethersulfone). It has a very well controlled MWCO, and so is ideal for applications where protein rejection is important. Very good caustic and chlorine resistance.

SXU-T is an asymmetric UF membrane made with **PSO** (polysulfone). It has a larger pore size, and so is ideal for general RO pretreatment applications. PSO has very good chemical stability, is strong, and easy to clean.

SXU-V is an asymmetric UF/MF membrane made with **PVDF** (polyvinylidene fluoride). It has larger pores than PES and PSO. SXU-V is ideally suited for waters that have oil or grease. SXU-V is more chlorine tolerant than PES and PSO UF membranes. PVDF is hydrophobic.



SnowPure's Separation Technologies

- Electropure™ EDI
- Zapwater™ Laboratory EDI
- Electropure™ ED—Electrodialysis
- EXCELL™ Membranes (IX, NF, UF)
- SPUV™ High Efficiency UV
- GTM-Gas Transfer Membranes
- DC Power Supplies

Doing business with SnowPure

- Electropure™ EDI technology was born in 1977, before lonpure
- SnowPure is privately held
- SnowPure is your partner, not a competitor
- High quality technology training and OEM support
- Focus on Customer Service, rapid response.

Benefits of Excell™ Membranes

- USA Membrane Technology
- Manufactured in USA
- Highly controlled process
- 34 years of broad membrane experience
- Reliable, robust, proprietary membranes
- ISO-9001 compliant quality system

Technology Training and OEM System Design Support

- SnowPure believes strongly in training—this helps ensure field success with our technologies.
- SnowPure assists new OEM customers through their system design phase, both during the OEM training and the design process. Support includes reviews of P&I diagrams and feedwater requirements.
- Combined with ongoing Technical Service, we help ensure success.

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