

# **UPS-P Series**

## **UNISOL** Ultrafiltration Flat Sheet Membrane

The UPS-P series ultrafiltration (UF) flat sheet membranes have a molecular weight cut-off range of 5,000 – 150,000 Daltons. The flat sheet is a hydrophilic polyethersulfone (PES) membrane which is caustic and chlorine resistant, provides a stable hydraulic environment for mechanical strength and integrity.

It can be configured in a wide variety of element designs and used in many different applications ranging from food and dairy process applications to industrial water purification. Available in dry flat sheet rolls. Customizable.

#### Specification

| Specification         |                         |                 |
|-----------------------|-------------------------|-----------------|
| Membrane Type         | MWCO                    | Pure Water Flux |
| UPS005-P              | 5,000 Da                | ≥ 20 LMH/bar    |
| UPS010-P              | 10,000 Da               | ≥ 50 LMH/bar    |
| UPS020-P              | 20,000 Da               | ≥ 70 LMH/bar    |
| UPS150-P              | 150,000 Da              | ≥ 165 LMH/bar   |
| Membrane Material     | Polyethersulfone (PES)  |                 |
| Backing Material      | Polypropylene (PP)      |                 |
| Thickness             | 210-230 μm              |                 |
| Effective Width       | 1026 mm                 |                 |
| pH range              | 0-14                    |                 |
| Operation Temperature | 5-80°C (41-76°F)        |                 |
| Chlorine Tolerance    | 200 ppm at pH 10.5-11.0 |                 |
|                       |                         |                 |

#### **STORAGE**

- Unused membrane store in original sealed package.
- Keep at room temperature within 5 ~ 35°C.
- · Protect from direct sunlight and fire source. Do not expose the membrane to any oxidants.
- Keep membrane moist at all times after initial wetting.
- Drying and re-wetting will irreversibly reduce water permeability. Contact us for more wet membrane storage procedures.

#### **HANDLING**

- Avoid scratching, bending or tearing.
- Use gloves to prevent direct contact with residual dirt and oil contaminate from hands.

### **CLEANING**

 Periodically cleaning is recommended to ensure proper performance. Please Contact us for recommended cleaning chemicals and cleaning procedures.



# **UPS-T Series**

## **UNISOL** Ultrafiltration Flat Sheet Membrane

The UPS-T series ultrafiltration (UF) flat sheet membranes have a molecular weight cut-off range of 10,000 – 150,000 Daltons, reject solutes based on size and charge. The flat sheet is a hydrophilic polyethersulfone (PES) membrane with high rejection of solids.

It can be configured in a wide variety of element designs for food, dairy and process separations as well as water purification. Available in dry flat sheet rolls. Customizable.

#### Specification

| MWCO                   | Pure Water Flux   |
|------------------------|---|
| 10 000 B               |   |
| 10,000 Da              | ≥ 50 LMH/bar  |
| 20,000 Da              | ≥ 65 LMH/bar  |
| 150,000 Da             | ≥ 165 LMH/bar   |
| Polyethersulfone (PES) |   |
| Polyester (PET)        |   |
| 170-190 μm             |   |
| 1026 mm                |   |
| 1-12                   |   |
| 5-80°C (41-76°F)       |   |
|                        | 150,000 Da Polyethersulfone (PES) Polyester (PET) 170-190 µm 1026 mm 1-12 |

#### **STORAGE**

- Unused membrane store in original sealed package.
- Keep at room temperature within 5 ~ 35°C.
- Protect from direct sunlight and fire source. Do not expose the membrane to any oxidants.
- · Keep membrane moist at all times after initial wetting.
- Drying and re-wetting will irreversibly reduce water permeability. Contact us for more wet membrane storage procedures.

#### **HANDLING**

- Avoid scratching, bending or tearing.
- Use gloves to prevent direct contact with residual dirt and oil contaminate from hands.

#### **CLEANING**

 Periodically cleaning is recommended to ensure proper performance. Please Contact us for recommended cleaning chemicals and cleaning procedures.



## **MPV-T Series**

## **UNISOL** Microfiltration Flat Sheet Membrane

The MPV-T series microfiltration (MF) flat sheet membranes are designed with a pore size range of  $0.1-0.2\mu m$ . It is made of novel modified polyvinylidene fluoride (PVDF).

It can be configured in a wide variety of element designs and used in deeply treat recycled water reuse and industrial water such as municipal, electricity, steel, petrochemical, textile, landfill leachate, etc.. Available in dry flat sheet rolls. Customizable.

#### **Specification**

| Membrane Type         | Pore Size                      | Pure Water Flux |
|-----------------------|--------------------------------|-----------------|
| MPV010-T              | 0.1μm                          | ≥ 300 LMH/bar   |
| MPV020-T              | 0.2μm                          | ≥ 500 LMH/bar   |
| Membrane Material     | Polyvinylidene Fluoride (PVDF) |                 |
| Backing Material      | Polyester (PET)                |                 |
| Thickness             | 160-170 μm                     |                 |
| Effective Width       | 1026 mm                        |                 |
| pH range              | 1-12                           |                 |
| Operation Temperature | 5-80°C (41-76°F)               |                 |
|                       |                                |                 |

#### **STORAGE**

- Unused membrane store in original sealed package.
- Keep at room temperature within 5 ~ 35°C.
- Protect from direct sunlight and fire source. Do not expose the membrane to any oxidants.
- · Keep membrane moist at all times after initial wetting.
- Drying and re-wetting will irreversibly reduce water permeability. Contact us for more wet membrane storage procedures.

#### **HANDLING**

- Avoid scratching, bending or tearing.
- Use gloves to prevent direct contact with residual dirt and oil contaminate from hands.

#### **CLEANING**

 Periodically cleaning is recommended to ensure proper performance. Please Contact us for recommended cleaning chemicals and cleaning procedures.