SPECIFICATION

POLYURETHANE (PU) & HIGH TEMP PU

FlexAir® Pro Panel and Tubular Diffuser Technologies

Environmental Dynamics International offers state-of-the-art membranes that have been developed as dependable and durable options for aeration systems used in the treatment of industrial effluents. In environments where EPDM would be unsuitable, such as those containing animal fats, greases, mineral oils, petroleum lubricants, aromatic solvents, food processing, or pulp and paper manufacturing, polyurethanes are the first choice of compound for long term stability. EDI's fabrication techniques and sophisticated polyurethane materials enable the use of these products in high-temperature environments that are typically inaccessible to conventional membrane technologies.

Material Features

- Available for FlexAir Pro Panel and Tubular diffuser Technologies
- Highly comparable with Sequencing Batch Reactors (SBR), flex fatigue resistance has been rigorously evaluated and it can endure more than 2 million on/off cycles.
- Fouling is inhibited and biosolid accumulation is prevented, by the smooth surface properties of the material.
- Superior chemical resistance provides great functionality in severe environments. Highly effective against solvents, oils, and abrasion. Avoid using esters, acids, or ketones.
- UV protection is incorporated to withstand UV rays prior to system start-up.
- No extratable oil content.
- Great stability with respect to Dynamic Wet Pressure; sustains the system's head loss and maintains energy consumption as the product ages better than other membrane technologies.

5601 Paris Rd.
Columbia, Missouri
USA 65202

+1 573 474 9456
wastewater.com

		Polyurethane	High-Temperature Polyurethane
Hardness (ASTM D2240)	Shore A	85 +/- 5	90 +/- 5
Specific Gravity, (ASTM D792)		<1.15	<1.16
Tensile Strength, (ASTM D412)	psi MPa	>3500 >24.1	>5000 >34.5
Tensile Modulus, @100% elongation	psi MPa	>685 >4.7	>1300 >9.0
Tensile Modulus, @300% elongation	psi MPa	>1200 >8.3	>3000 >20.7
Ultimate Elongation		>475%	>400%
Tear Strength	lb_f/in kN/m	>150 >26.3	>150 >26.3

Polyurethane suitable for temperatures between -45°C (-49°F) and 70°C (158°F) of mean wall temperature; high-temperature polyurethane suitable for temperatures between -45°C (-49°F) and maximum 80°C (176°F) mean wall temperature

Values listed in the specification chart are per tube, unless noted otherwise. Optimum oxygen transfer efficiency is achieved when operating in the middle to low end of the airflow range. The approximate operating pressure fo the diffuser at the mid-range is 13-16 inches (3.2-4.0kPa). Working with EDI is easy:

1 **We walk you through exactly what project info we need.** Call +1 573 474 9456 or visit wastewater.com.

2 **We supply** drawings, specs, best-in-class aeration, support, even install!

3 You rest easy, knowing your plant has ***Aeration for life®***