

Filter Membranes

NORGARD™ MICROPOROUS PTFE FILMS (ZITEX) is a versatile microporous form of polytetrafluoroethylene (PTFE). Exhibiting outstanding chemical compatibility and excellent thermal stability, Norgard structures are able to handle virtually any corrosive fluid. Strong and tough, these membranes are self-supporting and typically do not require non-PTFE polymeric backings that can compromise performance. Aqueous solutions may be filtered by using pressures that exceed the membrane's water initiation pressure, or with the aid of wetting agents such as ethanol. Inherently hydrophobic and chemically resistant, Norgard microporous PTFE Film (Zitex) prevents passage of liquid solutions below their initiation pressures while allowing free passage of gases. These characteristics make this product an effective hydrophobic venting material to provide pressure equalization in liquid packaging containers. As a diffusion membrane in gas sensors, the porous structure of PTFE film allows for gas passage to the sensor while retaining liquids or restricting liquid penetration into the device.

AVAILABILITY:

This material can be manufactured to custom dimensions and profiles up to 0.25 inch (6.3mm) thick having controlled density and mechanical properties to meet industry requirements for use in aircraft engine seal applications

APPLICATIONS:

These materials are ideally suited for gasketing applications where a compressible liner is required. These gaskets are ideal for glass-to-glass fittings, or where non-uniform sealing areas are involved.



FEATURES AND BENEFITS:

- Chemical inertness – resists attack by virtually all acids, bases and solvents
- Thermal stability – can withstand temperatures as high as 500°F (260°C) and as low as -450°F (-268°C)
- Hydrophobicity allows passage of gases while preventing liquid flow • High wet strength
- Non-contaminating
- Self-supporting
- Non-stick surface for excellent filter cake release
- Self-gasketing – when clamped between solid flanges, ZitexGcompacts to form its own gaske



MATRIX PRECISION CONVERTING

Your Application. Our Expertise.

Matrix specializes in precision cutting and converting of engineered materials to meet the exact specifications required by manufacturers. Our state-of-the-art equipment and expertise ensure precise customization, providing manufacturers with streamlined solutions to enhance their product quality and performance.

TYPICAL PROPERTIES G-100 SERIES

Property	G-104	G-106	G-108	G-110	G-115	Units
Functional Pore Size	5 - 6	4 - 5	3 - 4	1 - 2	1 - 2	microns
Air Flow, 100 cc./1.0 in. ² /20 oz. (Gurley Densitometer Test)*	1.7 ± 0.8	2.5 ± 1.5	4 - 5	5 - 6	6.5 ± 1.5	seconds
Bubble Point (Ethanol)	0.6 ± 0.2	0.8 ± 0.2	1.0 ± 0.2	1.2 ± 0.2	1.2 ± 0.2	psi
	4.1 ± 1.4	5.5 ± 1.4	6.9 ± 1.4	8.2 ± 1.4	8.2 ± 1.4	kPa
Water Flow Rate @ 13.5 psi (93kPa)	75 ± 15	55 ± 10	40 ± 10	25 ± 5	20 ± 5	gal/min/ft ²
	300 ± 60	220 ± 40	160 ± 40	100 ± 20	80 ± 20	ml/min/cm ²
Water Initiation Pressure	2 ± 0.5	3 ± 0.5	4 ± 0.5	6 ± 0.5	6 ± 0.5	psi
	13 ± 3.5	20 ± 3.5	27 ± 3.5	40 ± 3.5	40 ± 3.5	kPa
Breaking Strength	4.8	7.2	9.6	12.0	15.0	lbs./inch width
	0.8	1.2	1.6	2.1	2.6	N/mm width
Elongation	75	75	75	75	75	%
Pore Volume	55	50	45	40	40	%
Thickness	0.004 ± 0.001	0.006 ± 0.001	0.008 ± 0.002	0.010 ± 0.002	0.015 ± 0.003	inches
	0.101 ± 0.025	0.152 ± 0.025	0.203 ± 0.051	0.254 ± 0.051	0.381 ± 0.076	mm
Put-Ups	Standard width up to 10", standard length 100', 3" I.D. cores. Longer lengths are available upon request					

* Gurley Densitometer Test: time required for 100cc of air to pass through 1 inch² (6.54 cm²) at ΔP = 0.176 psi (1.21 kPa)

The values presented are typical values and should not be used for specification purposes. Contact your Saint-Gobain® Tape Solutions representative for more information.