Pall Corporation

Supor® R Membrane

Description

The Supor R membrane is a modified polyethersulfone polymer cast on a nonwoven polyester support. It is Repel™ treated for superior oleophobicity and hydrophobicity.

- Oleophobic/hydrophobic
- Excellent air permeability
- Broad chemical compatibility
- Compatible with a variety of sealing methods
- Excellent handling properties
- Manufacture is carried out according to procedures within a quality management system certified to ISO9001

Specifications

Dimensions

Custom roll, sheet and disc sizes available

Please contact your local Pall representative for more information.

Packaging

Core: 7.6 cm (3.0 in) ID, PVC
Packaging: For widths up to 22.86 cm (9.0 in), shrink-wrap around each roll; for widths 22.86 cm (9.0 in) and larger, bag around each roll

Qualification Services

Pall Corporation offers qualification services to support regulatory compliance.

Supor® R membrane

Benefits of Venting

- Contamination control
- Controlled air/gas exchange rates
- Cost savings
- Design flexibility
- High permeability rates
- Higher throughput; increased fill rates
- Increased system reliability
- Parts remain free of corrosion
- Pressure equalization
- Reactive surfaces are not poisoned
- Sensing surfaces protection
- Short circuits are prevented
- Temperature stabilization

Applications and Media Requirements by Industry[1]

Automotive

Application	Media Requirements
• ABS brake systems	• Easily die cut and sealed
• Air conditioning pressure sensors	• Good chemical resistance
• Electric motors: windows, windshield wipers	• High mechanical strength
• Electronic control units	• High permeability
• Fuel tanks: pressure sensors, gas caps, roll-over valve protection	• High repellency to gasoline and other automotive fluids
• Lighting assemblies: headlight, taillight	• High vapor transport rate
• Powertrain control units	• Low back pressure

Electronics

Application	Media Requirements
• Computer disk drives	• Easily die cut and sealed
• Enclosure vents	• Good chemical resistance
• Marine electronic enclosures	• High acoustic transparency
• Portable electronic devices	• High water intrusion pressure
• Transducer protectors	• Low back pressure
• Vented packaging	• Resistant to salt water
	• Resistant to UV
	• Thin or low profile

Food and Beverage

Application	Media Requirements
• Food packaging: processing, moisture protection, shipping	• Easily customized for unusual shapes
• Liquid bottling: filling, packaging, shipping	• Easily die cut and sealed
• Thermal vents	• Good chemical resistance
• Vented cap and lid liners	• Good mechanical strength
	• Good repellency
	• High permeability
	• High temperature resistance

Other Industrial Applications[2]

- Cap and lid vents
- Moisture barriers
- Packaging vents
- Reactive product packaging
- Sensor protection

[1] *This table is intended to serve as a guide only. Since applicable regulations and requirements may differ from country-to-country, please contact your local Pall representative for specific information.*

[2] *The Supor R membrane is used in a variety of Industrial markets and applications. For information about those not listed above, please contact your local Pall representative.*

Chemical Resistance[3,4]

Acids
- Acetic acid - glacial
- Acetic acid - 10%
- Acetic acid - 30%
- Acetic acid - 90%
- Hydrochloric acid - conc. (35%)
- Hydrochloric acid - 1N (3.3%)
- Nitric acid - 6N (27%): limited resistance

Alcohols
- Amyl alcohol
- Benzyl alcohol
- Butanol
- Ethanol
- Isopropanol
- n-Propanol
- Methanol

Aromatic Hydrocarbons
- Benzene
- Toluene
- Xylene

Bases
- Ammonium hydroxide - 3N (5.7%)
- Ammonium hydroxide - 6N (11.4%)
- Potassium hydroxide - 3N (15%)
- Sodium hydroxide - 3N (11%)
- Sodium hydroxide - 6N (22%)

Esters
- Amyl acetate
- Butyl acetate
- Cellosolve acetate
- Ethyl acetate: limited resistance
- Isopropyl acetate: limited resistance

Ethers
- Ethyl ether
- Tetrahydrofuran/water (50/50 v/v): limited resistance

Glycols
- Ethylene glycol
- Glycerol
- Propylene glycol

Halogenated Hydrocarbons
- Carbon tetrachloride
- Genosolv D
- Perchloroethylene
- Tetrachloroethylene
- Trichloroethylene

Ketones
- Methyl isobutyl ketone

Miscellaneous
- 18 MOhm water
- Acetonitrile
- Formaldehyde - 37%
- Formaldehyde - 4%
- Gasoline
- Hexane - dry
- JP-4
- Kerosene
- Lubrication oil
- MIL-L-7808
- Skydrol 500
- Water

Oils
- Cottonseed
- Peanut
- Sesame

[3] *The Supor R membrane has demonstrated resistance to the chemicals on this list.*

[4] *This table is intended to serve as a guide only. Accuracy cannnot be guaranteed. Users are responsible for verifying chemical compatibility under their own conditions of use. Chemical compatibility is affected by many variables including temperature, pressure, concentration, and chemical purity.*

Sealing Method Compatibility[5]
(• Compatible)

Material	Method					
	Adhesive Sealing	Heated Dies	Insert Molding	Mechanical Seal	Radio Frequency	Ultrasonic
ABS	•	•	•	•	•	•
Acrylic	•	•		•	•	
EVA		•	•	•	•	•
Latex	•			•		
Natural rubber	•			•		
Polycarbonate	•	•		•	•	•
Polyester (PBT)	•	•		•		•
Polyethylene		•	•	•		
Polypropylene		•	•	•		•
PVC		•	•	•	•	
Silicone	•					
Styrene		•	•	•		•
Synthetic rubber	•			•		
Urethane (thermoplastic)	•	•	•	•		•

[5] *This table is intended to serve as a guide only. Accuracy cannnot be guaranteed. Users should verify chemical compatibility with their specific membrane under actual conditions. Additional information about Pall materials is available online at www.pall.com/industrialmaterials.*

Performance[6]

Part Number	Description	Rating (um)	Support Type	Suggested Maximum Operating Temp. C° (F°)	Oil Rating (1-8)[7]	Minimum Thickness (mils)	Maximum Thickness (mils)	Water Intrusion psi (bar)	Air Flow Rate[8]
80526	Supor 200R	0.2	Nonwoven polyester	250 (482)	8	4.7	8.5	≥ 20.0 (1.38)	≥ 6.0
80535	Supor 450R	0.45	Nonwoven polyester	250/482	8	3.0	6.4	≥ 12.0 (0.83)	≥ 28.0

6 *The maximum operating temperatures listed are guidelines only. Accuracy cannot be guaranteed. Users should verify maximum temperature during continuous operation under actual conditions.*

7 *Hydrocarbon resistance test was performed according to AATCC Test Method 118-1989.*

8 *Air flow rate units: Lpm / 3.7 cm^2 @ 13.5 psi (0.9 bar)*

Ordering Information

For ordering information, or to place an order, please contact your local Pall representative.

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Pall Corporation has offices and plants throughout the world. For Pall representatives in your area, please go to www.pall.com/corporate_contact.asp

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