

geofilter™ Flatstock Filter Membrane Chemical Compatibility

This guide should be used as a reference to select the proper membrane, o-ring, and filter holder with regard to chemical compatibility. Recommendations are based on a 24 hour static exposure to the test fluid at room temperature.

- R** = Recommended: No change in either water flow rate or bubble point was observed.
L = Limited resistance: Additional in-house testing is advised as swelling, discoloration, or other minor changes may occur.
N = Not recommended: Significant changes in water flow rate and/or bubble point may occur.

TEST PROTOCOL

To perform a compatibility check in your own laboratory, the following test protocol is recommended:

1. Select a specific polymer type in the appropriate pore size.
2. Perform a bubble point and liquid flow rate test on the membrane using the procedure in the respective chart of the Specifications section of the Geofilter catalog. Record the values.
3. Soak the membrane in the test fluid for the anticipated exposure time. This is a static test, but results generally correlate to dynamic processing conditions.
4. Rinse the filter thoroughly to remove traces of the test fluid.
5. Repeat Step 2. Compare to results obtained in Step 3. Examine the filter for swelling, brittleness, change in color, etc., and compare to a control filter. If neither the physical tests nor the outward appearance of the membrane has changed, the membrane is considered compatible with the test fluid.

CHEMICAL FLUID	CELLULOSE:		PTFE	CHEMICAL FLUID	CELLULOSE:		PTFE	CHEMICAL FLUID	CELLULOSE:		PTFE								
	Nitrate	Acetate			Nitrate	Acetate			Nitrate	Acetate									
ALCOHOLS																			
N-Amyl Alcohol	R	R	R	ACIDS															
Butanol	R	R	R	10% Acetic	R	N	R	HALOGENATED											
Ethanol	N	R	R	Glacial Acetic Acid	N	N	R	Bromoform	R	N	R								
Ethylene Glycol	L	L	R	Boric Acid (5%)	R	R	R	Carbon tetrachloride	R	L	R								
Glycerol	R	R	R	Formic Acid (50%)	L	L	R	Chloroform	R	N	R								
N-Hexanol	L	R	R	6N Hydrochloric Acid	R	R	R	Ethylene dichloride	L	N	R								
Isobutanol	L	R	R	Concentrated	N	N	R	Methylene	L	N	R								
Isopropanol	L	L	R	Hydrochloric Acid				Perchloroethylene	R	R	R								
Methanol	N	R	R	Hydrofluoric Acid	N	N	R	1.1.1-Trichloroethane	L	N	R								
Propanol	R	L	R	(35%)				1.1.2-Trichloroethane	N	N	R								
Propylene Glycol	L	L	R	6N Nitric Acid	L	R	R	Monochlorobenzene	R	R	R								
Butyl Cellosolve	N	L	R	Concentrated	N	N	R	Trichlorobenzene	R	N	R								
Methyl Cellosolve	N	L	R	Nitric Acid				Trichloroethylene	R	R	R								
2.2 – Ethoxyethoxy	N	R	R	Perchloric Acid (60%)	R	N	R	KETONES											
Ethanol (Carbitol)				6N Sulfuric Acid	R	R	R	Acetone	N	N	R								
Polyethylene Glycol 1000	L	R	R	Concentrated	N	N	R	Cyclohexanone	N	N	R								
Benzyl Alcohol	L	L	R	Sulfuric Acid				Methyl Ethyl Ketone (MEK)	N	L	R								
ALDEHYDES																			
Butraldehyde	N	N	R	ESTERS															
Formaldehyde (37%)	R	N	R	Amyl Acetate	N	L	R	PHOTO RESISTS											
Formalin (10%)	R	L	R	Ethyl Acetate	N	N	R	Kodak KMER, FTFR	N	R	R								
AMINES																			
Aniline	R	N	R	Methyl Acetate	N	N	R	Shipley Microposit	N	N	R								
Diethyl Acetamide	N	N	R	ETHERS															
Triethanolamine	N	R	R	1 4 Dioxane	N	N	R	Waycoat 59	N	N	R								
BASES																			
6N Ammonium Hydroxide	N	L	R	Ethyl Ether	L	L	R	MISCELLANEOUS											
6N Potassium Hydroxide	N	N	R	Isopropyl Ether	R	R	R	Acetonitrile	N	N	R								
6N Sodium Hydroxide	N	N	R	Petroleum Ether	R	R	R	Hydrogen Peroxide (30%)	R	R	R								
OILS																			
Silicones	R	R	R	HYDROCARBONS															
Petroleum Oils	R	R	R	Benzene	R	R	R	Nitrobenzene	N	N	R								
				Gasoline	R	R	R	Nitropropane	N	N	R								
				Hexane	R	R	R	Pyridine	N	N	R								
				Kerosene	R	R	R	Tetrahydrofuran	N	N	R								
				Pentane	R	R	R	Dimethylsulfoxide (DMSO)	N	N	R								
				Toluene	R	R	R	Freon TF	R	R	R								
				Xylene	R	R	R	Mineral Spirits	R	R	R								
								Turpentine	R	R	R								

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