

## geofilter™ Flatstock 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.

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 steps 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		
	Nitrate	Acetate	PTFE
<b>ALCOHOLS</b>			
N-Amyl alcohol	R	R	R
Butanol	R	R	R
Ethanol	N	R	R
Ethylene glycol	L	L	R
Glycerol	R	R	R
N-Hexanol	L	R	R
Isobutanol	L	R	R
Isopropanol	L	L	R
Methanol	N	R	R
Propanol	R	L	R
Propylene glycol	L	L	R
Butyl cellosolve	N	L	R
Methyl cellosolve	N	L	R
2,2 - Ethoxyethoxy ethanol (carbitol)	N	R	R
Polyethylene glycol 1000	L	R	R
Benzyl alcohol	L	L	R
<b>ALDEHYDES</b>			
Butraldehyde	N	N	R
Formaldehyde (37%)	R	N	R
Formalin (10%)	R	L	R
<b>AMINES</b>			
Aniline	R	N	R
Diethyl acetamide	N	N	R
Triethanolamine	N	R	R
<b>BASES</b>			
6N Ammonium hydroxide	N	L	R
6N Potassium hydroxide	N	N	R
6N Sodium hydroxide	N	N	R
<b>ESTERS</b>			
Amyl acetate	N	L	R
Ethyl acetate	N	N	R
Methyl acetate	N	N	R
<b>ACIDS</b>			
10% Acetic	R	N	R
Glacial acetic acid	N	N	R
Boric acid (5%)	R	R	R
Formic acid (50%)	L	L	R

CHEMICAL FLUID	Cellulose		
	Nitrate	Acetate	PTFE
<b>ACIDS (cont.)</b>			
6N Hydrochloric acid	R	R	R
Concentrated hydrochloric acid	N	N	R
Hydrofluoric acid (35%)	N	N	R
6N Nitric acid	L	R	R
Concentrated nitric acid	N	N	R
Perchloric acid (60%)	R	N	R
6N Sulfuric acid	R	R	R
Concentrated sulfuric acid	N	N	R
<b>ETHERS</b>			
1,4 Dioxane	N	N	R
Ethyl ether	L	L	R
Isopropyl ether	R	R	R
Petroleum ether	R	R	R
<b>HYDROCARBONS</b>			
Benzene	R	R	R
Gasoline	R	R	R
Hexane	R	R	R
Kerosene	R	R	R
Pentane	R	R	R
Toluene	R	R	R
Xylene	R	R	R
<b>HALOGENATED</b>			
Bromoform	R	N	R
Carbon tetrachloride	R	L	R
Chloroform	R	N	R
Ethylene dichloride	L	N	R
Methylene	L	N	R
Perchloroethylene	R	R	R
1,1,1-Trichloroethane	L	N	R
1,1,2-Trichloroethane	N	N	R
Monochlorobenzene	R	R	R
Trichlorobenzene	R	N	R
Trichloroethylene	R	R	R
<b>KETONES</b>			
Acetone	N	N	R
Cyclohexanone	N	N	R
Methyl ethyl ketone (MEK)	N	L	R
<b>OILS</b>			
Silicones	R	R	R
Petroleum oils	R	R	R
<b>PHOTO RESISTS</b>			
Kodak KMER, FTFR	N	R	R
Shipley Microposit	N	N	R
Waycoat 59	N	N	R
<b>MISCELLANEOUS</b>			
Acetonitrile	N	N	R
Hydrogen peroxide (30%)	R	R	R
Nitrobenzene	N	N	R
Nitropropane	N	N	R
Pyridine	N	N	R
Tetrahydrofuran	N	N	R
Dimethylsulfoxide (DMSO)	N	N	R
Freon TF	R	R	R
Mineral spirits	R	R	R
Turpentine	R	R	R

**CALL GEOTECH TODAY (800) 833-7958**

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242

email: [sales@geotechenv.com](mailto:sales@geotechenv.com) website: [www.geotechenv.com](http://www.geotechenv.com)