

**Diamond Grip (MF-300)**  
**In-House Chemical Permeation Data**

**ASTM F739-99, Standard Test Method for Resistance of Protective Clothing  
Materials to Permeation by Liquids or Gases Under Conditions of Continuous  
Contact.**

Chemical	Breakthrough Time (min)	Permeation Rate ( $\mu\text{g}/\text{cm}^2/\text{min}$ )	Recommendation
Acetaldehyde	1	8.99E+01	Not Recommended
Acetic acid (50%)	>120	NBT	Excellent
Acetone	0	4.76E+01	Not Recommended
Acetonitrile	0	3.78E+01	Not Recommended
Aluminum nitrate (10%)	>120	NBT	Excellent
Ammonium hydroxide (30%)	0	6.14E+04	Not Recommended
Benzene	0	2.96E+03	No Recommended
Butyl acetate	10	1.87E+02	Poor
Chlonidine hydrochloride (0.10%)	>120	NBT	Excellent
Dimethyl sulfoxide	60	5.22E-01	Very Good
Diesel fuel	0	5.43E+03	Not Recommended
Ethanol	>120	NBT	Excellent
Ethidium bromide (1%)	>120	NBT	Excellent
Ethyl acetate	1	3.54E+03	Not Recommended
Gluteraldehyde (50%)	15	2.61E-01	Fair
Hexane	0	3.92E+03	Not Recommended
Isopropanol	>120	NBT	Excellent
Methanol	5	1.93E+01	Poor
Methyl ethyl ketone	0	9.20E+01	Not Recommended
Nitric acid (50%)	>120	NBT	Excellent
Periodic acid (50%)	>120	NBT	Excellent
Phenol (0.10%)	>120	NBT	Excellent
Silver nitrate (0.17N)	>120	NBT	Excellent
Sodium hydroxide (50%)	>120	NBT	Excellent
Sodium selenate (10%)	>120	NBT	Excellent
Sulfuric acid (50%)	>120	NBT	Excellent
Tetrahydrofuran	0	1.97E+03	Not Recommended
Toluene	0	7.35E+02	Not Recommended
Xylene	0	2.25E+03	Not Recommended

\*NBT = no breakthrough time