Xealpro chemical resistance chart

Silicones are chemically very inert products and will resist long-term exposure to most chemicals. In industrial use, they are sensitive to strong chemicals such as concentrated sulphuric acid, hydrogen fluoride or high-pressure overheated steam.

This chart shows the results of laboratorium tests under controlled circumstances and does comply with our in-field knowledge. But chemical resistance is variable and dependent on different variables, such as temperature, concentration, exposure time and the presence of other chemicals. Therefor this chart should be considered as a guideline rather than a guarantee. In specific circumstances, the user should perform specific resistance tests.

Because of its elastomeric nature, Xealpro will absorb certain chemicals which results in a volume change. This change will make the product softer, but this can also improve sealing because of a pressure buildup in closed seals. This chart shows the expected volume change when Xealpro has been submerged in a chemical for one week at room temperature.

1 = Excellent: less than 10% volume change
2 = Good, 10-25% volume change
3 = Reasonable, 25-75% volume change
4 = Bad, over 75% volume change
5 = Product is attacked or disintegrates

Materials	Rating
Solvents	
Acetone	3
Butyl Alcohol	2
Carbon Tetrachloride	4
Diaceton Alcohol	1
Ethyl Alcohol	1
Gasoline	4
Jet Fuel, JP4	3
Mineral Spirits	4
Toluene	4

Hydraulic Fluids	Rating
Hollingshead, H-2	1
Hollingshead, H-2, 70 Hrs @ 100°C	2
Skydrol 500	3
Skydrol 8000 also after 70 Hrs @ 100°C	1
Silicate Base	3

Oils	
ASTM#10.1 aliphatic, 70 Hrs @ 150°C	1
ASTM#30.1 aromatic, 70 Hrs @ 150°C	3
Castor 0.1	1
Diester oils	2
Linseed oil	1
Mineral oil	1
Silicone oil also after 70 Hrs @ 150°C	3

Materials	Rating
Acids	
Citric	1
Hydrochloric, 3% and Conc.	1
Hydrofluoric	5
Phosphoric, dilute	1
Sulphuric, 10%	1
Sulphuric, Conc.	5
Nitric, 7% and Conc.	1-2
Acetic, 5% and Conc.	1

Bases	
Ammonium Hydroxide, 10%	1
Ammonium Hydroxide, Conc.	1
Potassium Hydroxide	1
Sodium Hydroxide, 5% and 50%	1

Inorganic Chemicals	
Anhydrous Ammonia	1
Sodium Chloride, 10%	1
Hydrogen Peroxide, 3%	1
Sodium Carbonate, 20%	1
Water	1
Water 70 Hrs @ 100°C	1

Organic Chemicals	
Detergents	1
Freon 12	2
Freon 114	3
Methyl Chloride	3
Tricresyl Phosphate	1