



STRETCH & SEAL[®]

SELF-FUSING SILICONE TAPE

Chemical Resistance Report

Includes Black, Clear, and Colors

Silicone rubber has good resistance to many chemicals, fluids and oils encountered in extreme environments.

Dilute Acids, Alkalis and Aquous Salt Solutions:

Whether hot or cold, these solutions have a negligible effect on silicones.

Concentrated Acids and Alkalis:

Silicones are attacked by concentrated acids and alkalis, especially oxidizing acids such as sulphuric acid.

Polar Liquids:

Short chain alcohols and acetone cause very little swelling and can be used in appropriate applications.

Nonpolar Liquids:

Linear or cyclic hydrocarbons, aliphatic or aromatic mineral oils, gasoline etc. cause severe swelling. They can only be used to a very limited extent.

The following table lists the effect of various chemicals on silicone rubber when fully immersed for 336 hours at room temperature and 120 °F.

Immersion Liquid	Exposure Time	Temp	Observation
Acetic Acid 10%	336 hrs	Room Temp	No Effect
		120F	No Effect
Acetic Acid 20%	336 hrs	Room Temp	No Effect
		120F	No Effect
Acetic Acid Concentrated	336 hrs	Room Temp	No Effect
		120F	Slight Cracking
Acetone	336 hrs	Room Temp	Slight Discoloration
		120F	Slight Discoloration
Ammonium Hydroxide 10%	336 hrs	Room Temp	No Effect
		120F	No Effect
Ammodium Hydroxide Concentrated	336 hrs	Room Temp	Very Slight Discoloration
		120F	Very Slight Discoloration
Aviation Fuel	336 hrs	Room Temp	Slight Discoloration, severe swelling
		120F	Not Tested



Immersion Liquid	Exposure Time	Temp	Observation
Acetic Acid 10%	336 hrs	Room Temp	No Effect
Benzene	336 hrs	Room Temp	Slight Discoloration, severe swelling
		120F	Not Tested
Boric Acid	336 hrs	Room Temp	No Effect
		120F	No Effect
20% Calcium Chloride in H2O	336 hrs	Room Temp	No Effect
		120F	No Effect
Carbon Tetrachloride	336 hrs	Room Temp	No Effect
		120F	No Effect
Diesel Fuel	336 hrs	Room Temp	Slight Discoloration, severe swelling
		120F	Not Tested
Distilled Water	336 hrs	Room Temp	No Effect
		120F	No Effect
Ethylene Glycol	336 hrs	Room Temp	No Effect
		120F	No Effect
Fatty Acids (Linseed Oil)	336 hrs	Room Temp	Slight Discoloration, severe swelling
		120F	Slight Discoloration, severe swelling
Formic Acid 10%	336 hrs	Room Temp	No Effect
		120F	No Effect
Gasoline	336 hrs	Room Temp	Slight Discoloration
		120F	Not Tested
Glycerine	336 hrs	Room Temp	Discoloration
		120F	
Hydraulic Fluid	336 hrs	Room Temp	Slight discoloration, slight swelling
		120F	
Hydrochloric Acid 5%	336 hrs	Room Temp	No Effect
		120F	No Effect
Hydrochloric Acid 10%	336 hrs	Room Temp	No Effect
		120F	No Effect
Hydrochloric Acid 20%	336 hrs	Room Temp	Discoloration & slight surface cracking
		120F	Discoloration & slight surface cracking
Hydrochloric Acid Concentrated	336 hrs	Room Temp	No Effect
		120F	No Effect
Hydrogen Peroxide 10%	336 hrs	Room Temp	No Effect
		120F	No Effect
Kerosene	336 hrs	Room Temp	Slight Discoloration, moderate swelling
		120F	Not Tested
Methyl Alcohol	336 hrs	Room Temp	No Effect
		120F	No Effect



Immersion Liquid	Exposure Time	Temp	Observation
Acetic Acid 10%	336 hrs	Room Temp	No Effect
Methyl Ethyl Ketone	336 hrs	Room Temp	Slight Discoloration, severe swelling
		120F	Not Tested
Methyl Isobutyl Ketone	336 hrs	Room Temp	Slight Discoloration, severe swelling
		120F	Not Tested
Mineral Spirits	336 hrs	Room Temp	Slight Discoloration, moderate swelling
		120F	No Effect
Motor Oil	336 hrs	Room Temp	Slight Discoloration
		120F	Slight Discoloration, softening
Nitric Acid 5%	336 hrs	Room Temp	No Effect
		120F	No Effect
Nitric Acid 10%	336 hrs	Room Temp	For both temps, slight discoloration
		120F	and slightly increased pliability
Phosphoric Acid 50%	336 hrs	Room Temp	No Effect
		120F	No Effect
Potash Lye 20%	336 hrs	Room Temp	No Effect
		120F	Slight Distention, surface alterations
Soda Solution 20%	336 hrs	Room Temp	No Effect
		120F	Slight Distention, surface alterations
20% Sodium Chloride in H2O	336 hrs	Room Temp	No Effect
		120F	No Effect
Sodium Hydroxide 50%	336 hrs	Room Temp	Surface altered, extreme pliability
		120F	Surface altered, increased pliability
Sodium Hypochlorite 1%	336 hrs	Room Temp	No Effect
		120F	No Effect
Sulfuric Acid 5%	336 hrs	Room Temp	No Effect
		120F	No Effect
Sulfuric Acid 10%	336 hrs	Room Temp	Slight discoloration and cracking
		120F	Slight discoloration and cracking
Sulfuric Acid 25%	336 hrs	Room Temp	Discoloration & moderate cracking
		120F	Discoloration & moderate cracking
Sulfuric Acid 50%	336 hrs	Room Temp	Discoloration & severe cracking
		120F	Discoloration & severe cracking
Toluene	336 hrs	Room Temp	Slight Discoloration, moderate swelling
		120F	Not Tested
Trichloroethane	336 hrs	Room Temp	Slight Discoloration, moderate swelling
		120F	Not Tested
Xylene	336 hrs	Room Temp	Slightly increased pliability
		120F	No Effect

