

Features of Fluoro Rubber

Ozone Resistance and Weather Resistance

Exhibits the maximum resistance among rubber elasticity under environments of ozone or light. The taking place of ozone cracking could not be observed when exposed for 1,000 hrs in ozone of 100ppm, and similarly is not attacked when exposed to extremely high pressure oxygen.

Chemical Resistance

Fluoro rubber has an excellent resistance on wide range of chemicals such as various oil, solvent, acid, etc.

However, attention is required for ketone ester or amine due to its susceptibility.

And it may deteriorate by its low tolerance for strong alkali.

Chemicals	Condition	Evaluation
酸 Acid		
塩酸 Hydrochloric Acid (35%)	40°C	◎
クロム酸 Chromic Acid (10%)	70°C	◎
硝酸 Nitric Acid (60%)	25°C	◎
氷酢酸 Glacial Acetic Acid	25°C	×
フッ酸 Hydrofluoric Acid (50%)	40°C	○
硫酸 Sulfuric Acid (98%)	40°C	◎
アルカリ Alkali		
アンモニア Ammonia	40°C	○
水酸化ナトリウム Sodium Hydroxide	40°C	*△~○
次亜塩素酸ナトリウム Sodium Hypochlorite	40°C	○
その他の無機薬品 Other Inorganic Chemical		
塩素 Chlorine	25°C	○
臭素 Bromine	25°C	○
水 Water	100°C	◎
ケトン・エーテル類 Ketone, Ether		
アセトン Acetone	40°C	×
メチルエチルケトン Methyl Ethyl Ketone	40°C	×
メチルエーテル Methyl Ether	25°C	×
塩素系溶剤 Chlorinated Solvent		
塩化メチレン Methylene Chloride	40°C	**×~○
クロロホルム Chloroform	40°C	*△~○
四塩化炭素 Carbon Tetrachloride	40°C	◎
トリクロロエチレン Trichlorethylene	40°C	◎
トリクロロエタン Trichloroethane	40°C	○~◎
アルコール類 Alcohol		
イソプロピルアルコール Isopropyl Alcohol	25°C	◎
エチルアルコール Ethyl Alcohol	40°C	○
グリセリン Glycerin	70°C	◎
ブチルアルコール Butyl Alcohol	40°C	○
メチルアルコール Methyl Alcohol	40°C	*△~○

Chemicals	Condition	Evaluation
油・油脂類 Oils and Fats		
エチレングリコール Ethylene Glycol	70°C	◎
シリコンオイル Silicone Oil	175°C	◎
綿実油 Cotton Oil	175°C	◎
ASTM No.3 オイル ASTM No.3 Oil	175°C	◎
JIS 1号油 JIS No.1 Oil	175°C	◎
燃料油 Fuel Oil		
ガソリン Gasoline	40°C	◎
灯油 Heating Oil	40°C	◎
Fuel A	40°C	◎
芳香族系炭化水素 Aromatic Hydrocarbon		
ベンゼン Benzene	40°C	*△~◎
トルエン Toluene	40°C	*△~◎
キシレン Xylene	40°C	*○~◎
フェノール Phenol (10%)	70°C	◎
脂肪族系炭化水素 Aliphatic Hydrocarbon		
n-ヘキサン n-Hexane	25°C	○
シクロヘキサン Cyclohexane	25°C	○
イソオクタン Isooctane	25°C	○

- ◎ : Little-affected
- : Some affect, but no prevention in use.
- △ : Unadvisable due to certain amount of affection.
- × : Not applicable due to heavy affection.
- * : Result in differences depends on material grade.

Above listed data indicates rough chemical resistant behavior based on swelling rate, etc. It is not provide any guarantees of chemical resistance. Confirm with a test considering use conditions before use.

Steam Resistance

Fluoro rubber has excellent steam resistance compared to other synthetic rubber.