

# Fluoroelastomer Properties and Characteristics

## Dynafluon Fluoroelastomers

Trade Name	:	Dynafluon Fluoroelastomers
Chemical Name	:	Fluoroelastomer
Generally Resistant To	:	Acids, Hydrocarbons, Oils, Gasoline, Water, Heat, Fuels, Chemicals, Weather, Sunlight, Oxidation and Ozone
Generally Attacked By	:	Ketones, Solvents, High pH Chemicals and Low Molecular Weight Carbonyls
ASTM D 2000/SAE J200 Classification	:	HK
MIL-R-3065/SAE J-14/ MIL-STD-417 Classification	:	TB
ASTM D-1418 Designation	:	FKM

## Physical Properties

Elongation	:	100 to 500%
Hardness Range (Durometer Shore A)	:	60 to 90

## Mechanical Properties

Compression Set	:	Very Good
Rebound Rating	:	Cold : Fair to Good Hot : Good to Excellent
Flex Cracking Resistance	:	Good
Abrasion Resistance	:	Good
Tear Resistance	:	Fair to Good
Impact Resistance	:	Good
Flame Resistance	:	Very Good to Excellent

## Thermal Properties

Minimum Service Temperature	:	-20 to -70°F
Maximum Service Temperature	:	+600°F

## Environmental Resistance

Recommended Shelf Life	:	20 years
Weather Resistance	:	Excellent to Outstanding
Sunlight Resistance	:	Good to Outstanding
Ozone Resistance	:	Outstanding
Oxidization Resistance	:	Outstanding
Water Resistance	:	Very Good
Steam Resistance	:	Poor to Good
Gas Permeability	:	Good to Excellent
Radiation Resistance	:	Good, 7 x 10 <sup>4</sup> Ga Gy Fair, 2 x 10 <sup>5</sup> Ga Gy

## Chemical Resistance

Acetone	:	NOT RECOMMENDED
Amonium Hydroxide	:	Minor to Moderate Effect
Animal Fats	:	RECOMMENDED : Little or Minor Effect
Carbon Dioxide	:	RECOMMENDED : Little or Minor Effect
Chlorine	:	DRY : RECOMMENDED : Little or Minor Effect WET : RECOMMENDED : Little or Minor Effect
Fluorine (Liquid)	:	Minor to Moderate Effect
Fuel Oil	:	RECOMMENDED : Little or Minor Effect
Gasoline	:	RECOMMENDED : Little or Minor Effect
Hydrochloric Acid 37%	:	HOT : RECOMMENDED : Little or Minor Effect COLD : RECOMMENDED : Little or Minor Effect
Hydrochloric Acid Concentrate 37%	:	HOT : Minor to Moderate Effect COLD : RECOMMENDED : Little or Minor Effect
Kerosene	:	RECOMMENDED : Little or Minor Effect
Methyl Ethyl Ketone	:	NOT RECOMMENDED
Mineral Oil	:	RECOMMENDED : Little or Minor Effect
Naptha	:	RECOMMENDED : Little or Minor Effect
Natural Gas	:	RECOMMENDED : Little or Minor Effect
Nitric Acid	:	Concentrate : RECOMMENDED : Little or Minor Effect Dillute : RECOMMENDED : Little or Minor Effect Red Fuming : Moderate to Severe Effect
Petroleum	:	Below 250: RECOMMENDED: Little or Minor Effect Above 250: Minor to Moderate Effect
Phosphoric Acid	:	20%: RECOMMENDED : Little or Minor Effect 45%: RECOMMENDED : Little or Minor Effect
Propane	:	RECOMMENDED : Little or Minor Effect
Salt Water	:	RECOMMENDED : Little or Minor Effect
Skydrol	:	Skydrol 500 : NOT RECOMMENDED Skydrol 7000 : Minor to Moderate Effect
Sodium Hydroxide	:	Minor to Moderate Effect
Sulfuric Acid	:	Concentrate: RECOMMENDED: Little or Minor Effect Dillute: RECOMMENDED: Little or Minor Effect 20% Oleum: RECOMMENDED: Little or Minor Effect
Toluene	:	RECOMMENDED: Little or Minor Effect
Transformer Oil	:	RECOMMENDED: Little or Minor Effect
Vegetable Oils	:	RECOMMENDED: Little or Minor Effect
Vinegar	:	RECOMMENDED: Little or Minor Effect