










# Butterfly Valve Seat Material Properties

Property	EPDM	NEOPRENE	VITON	SILICONE
Temperature	-55°–275°F	-40°–225°F	-20°–400°F	-80°–450°F
Resistance to	Acid	Good–Excellent	Good	Good
	Alkali	Good–Excellent	Poor–Good	Poor–Good
	Petroleum Oil	Poor	Excellent	Good
	Vegetable Oil	Good	Excellent	Good
	Abrasion	Good–Excellent	Good	Good–Excellent
Compression Set	Fair	Good	Good–Excellent	Good–Excellent

Seat Material	General Application	Temperature Range	Environments Not Recommended
 NITRILE BUNA-N (NBR)	Hydrocarbons with less than 40% of aromatics, natural gas, air, H <sub>2</sub> O, sea water, brine, alcohols, glycols (food grade available)	14°F to 176°F	solvents, benzene, xylene
		-10°C to 80°C	
 EPDM	H <sub>2</sub> O, steam, air, brine, abrasives, phosphates, esters, ketones, alkali, food compounds, liquids & solids, diluted inorganic acids, caustic soda (food grade available)	-4°F to 250°F	hydrocarbons, oils, fats, dry air
		-20°C to 120°C	
		-4°F to 300°F	
 HIGH TEMP EPDM	Oxidizing acids, chromic acid, hydrofluoric acid, sulphur based acids, sodium hypochlorite, ozone	-20°C to 148°C	steam, ketones, hot air, nitric acid
		0°F to 212°F	
 Hypalon (CSM)	Beverages, food	-18°C to 100°C	hydrocarbons, solvents, steam
		-22°F to 300°F	
 Silicone	Hydrocarbons with high concentration of aromatics, mineral and halogenated acids, phosphoric acid, aliphatic and aromatic ethers	-30°C to 150°C	steam, ketones, amines, esters, alkali
		0°F to 400°F	
 Fluoroelastomer (FKM) (VITON® or Fluorel®)	Oils, diluted mineral acids, alkali, fats	-18°C to 205°C	ketones, concentrated acids, solvents for paint
		-4°F to 212°F	
 Neoprene (CR)	Abrasive products	-20°C to 100°C	steam, oils, hydrocarbons
		-40°F to 176°F	
 Natural Rubber	Corrosive products, solvents	-40°C to 80°C	abrasive products, fluorine gases, alkaline metals
		-4°F to 250°F	
 PTFE/EPDM		-20°C to 120°C	