

## FTI Air Materials Temperature Limits

Material	Chemical Composition	Description	Operating Temperature	
			Min	Max
Polypropylene	Pure polypropylene	Thermoplastic that is resistant to alkali and strong acids. Lightweight and tough with good tensile strength.	32°F 0°C	158°F 70°C
PDVF	Pure polyvinylidene fluoride	Strong fluoropolymer with excellent chemical resistance. High tensile and impact strength.	10°F -12°C	220°F 104°C
Stainless steel	316 stainless steel	Wetted stainless steel wetted components are made of 316 stainless steel. Excellent chemical resistance, high tensile and impact strength, abrasion resistant.	Limited by other materials used in pump.	
Aluminium	ADC 12, LM24, LM25	Moderate chemical resistance with good impact strength and abrasion resistance.	Limited by other materials used in pump.	
Buna	Acrylonitrile-butadiene rubber	Also known as Buna-N, NBR or Nitrile. General purpose elastomer with good resistance to oil, water, solvent and hydraulic fluid. Not recommended with acetone, MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	10°F -12°C	190°F 88°C
EPDM	Ethylene propylene diene rubber	Good resistance to mild acids, detergents, alkalis, ketones and alcohols. Not recommended with solvents, petroleum oil, mineral oil or fuel exposure.	-40°F -40°C	250°F 121°C
FKM	Fluorocarbon rubber	Good resistance to a broad range of chemicals combined with good high temperature properties. Resistant to most acids, aliphatic, aromatic and halogenated hydrocarbons, oils, grease and fuels. Not recommended with hot water or hot aqueous solutions.	-40°F -40°C	350°F 177°C

Material	Chemical Composition	Description	Operating Temperature	
			Min	Max
Neoprene	Chloroprene rubber	Also known as chloroprene (CR). General purpose elastomer with good resistance to moderate chemicals, oils, grease, solvents and some refrigerants. Not recommended with oxidizing acids, ketones, esters or chlorinated hydrocarbons.	-0°F -18°C	212°F 100°C
Santoprene	Fully cured EPDM rubber particles encapsulated in a polypropylene (PP) matrix	Thermoplastic elastomer with good abrasion resistance with chemical resistance to a wide range of solvents and chemicals. Injection molded with no fabric layer.	-40°F -40°C	225°F 107°C
Hytrel	Thermoplastic polyester elastomer	Thermoplastic elastomer that combines resistance and flexibility of elastomers with the strength of plastics. Resistant to acids, bases, amines and glycols. Injection modled with no fabric layer.	-20°F -29°F	220°F 104°C
Polyurethane	Polyester urethane	Thermoplastic that exhibits excellent abrasion resistance providing superior performance in hydraulic and abrasive applications. Injection molded with no fabric layer.	32°F 0°C	150°F 66°C
PTFE	Polytetrafluoroethylene	Chemically inert and non-reactive. Resistant to a wide range of chemicals.	40°F 4°C	225°F 107°C
FEP	Fluorinated ethylene propylene	Similar to PTFE in composition and similar chemical resistance but is more easily formed/shaped. Used to encapsulate FKM o-rings for superior chemical resistance.	40°F 4°C	225°F 107