

## **Ball Checks:**

Material	Description
Thermoplastic Polyester Elastomer (TPE)	Good low temperature properties. Good abrasion resistance
Stainless Steel	High level of corrosion and abrasion resistance. Passivated 316 grade.
Santoprene	Good abrasion and chemical resistance. OK for use with some solvents, (e.g. MEK, acetone) caustic solutions, dilute acids and alcohols.
Geolast	Good abrasion resistance. Approximately same chemical compatibility as Buna
Fluoroelastomer (FKM)	High heat resistance. Good resistance to aggressive chemicals including acids and some solvents. Good resistance to steam as well as animal, vegetable and petroleum oils. Not for use with ketones, low molecular weight ester and nitro containing compounds
PTFE	Widest chemical compatibility, extreme corrosion resistance, very low frictional coefficient, non- adhesive, high heat resistance. Poor abrasion resistance
Polychloroprene (CR)	High resistance. Good with whiskey, wine, beer and natural gas, Good with animal and vegetable oil, moderate chemicals, fats and greases. Not for oxidized acids, esters, ketones, chlorinated aromatic and nitro hydrocarbons.
Acetal	Wide range of solvent resistance and withstands extreme fatigue. Good level of abrasion resistance. Not for use with acids or bases.

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## Seats:

Material	Description
Polypropylene	Wide chemical compatibility. General purpose.
Thermoplastic Polyester Elastomer (TPE)	Good low temp properties. Good abrasion resistance.
Stainless Steel	High level of corrosion and abrasion resistance. Passivated 316 grade.
Santoprene	Good abrasion and chemical resistance. OK for use with some solvents, (e.g. MEK, acetone) caustic
	solutions, dilute acids, and alcohols. Often substituted for EPDM or EPR
Geolast	Good abrasion resistance. Approximately same chemical compatibility as Buna
Buna	Good for petroleum-based fluids, water, oils, hydrocarbons and MILD chemicals (e.g. mineral spirits).
	Not for sue with strong solvents or chemicals (e.g. acetone, MEK, ozone, chlorinated hydrocarbons, and nitro carbons).
Fluoroelastomer (FKM)	High heat resistance. Good resistance to aggressive chemicals including acids and some solvents
	(e.g. Xylene and mineral spirits). Good resistance to steam as well as animal, vegetable and
	petroleum oils. Resists unleaded fuels. Not of ketones, low molecular weight ester and nitro containing compounds.
Aluminum	Medium corrosion and abrasion resistance. Not for use with halogenated hydrocarbons.
Acetal	Wide range of solvent resistant and withstands extreme fatigue. Good level of abrasion resistance.
	Not for use with acids or bases
PVDF	Strong chemical resistance. Acids and bases. Good abrasion resistance. High temperature resistance.



## Diaphragms:

Materials:	Description:
PTFE/EPDM Two Piece	Widest chemical compatibility, extreme corrosion resistance, very low frictional coefficient, non- adhesive, high heat resistance.
PTFE/EPDM Overmolded	Same as above. <b>Overmolded design does not entrap materials, making it easier to clean.</b> Longer life than above.
Thermoplastic Polyester Elastomer (TPE)	Good low temp properties. Good abrasion resistance. Often substituted for Buna.
Santoprene	Good abrasion and chemical resistance. OK for use with some solvents (e.g. MEK, acetone) caustic solutions, dilute acids, and alcohols. Often substituted for EPDM or EPR.
Buna	Good for petroleum-based fluids, water, oils, hydrocarbons and MILD chemicals.
Fluoroelastomer (FKM)	High heat resistance. Good resistance to aggressive chemicals including acids and some solvents (e.g. xylene and mineral spirits). Good resistance to steam as well as animal, vegetable, and petroleum oils. Resists unleaded fuels.
Geolast	Good abrasion resistance. Approximately same chemical compatibility as Buna
Polychloroprene Overmolded (CR)	High resilience. Good with whiskey, wine, beer and natural gas. One source calls an "all purpose Polymer". About 30% higher abrasion resistance than Buna.
EPDM, used with 3A Pump (Ethylene Propylene Diene M-class rubber)	High heat resistance. Good resistance to gas permeability and to steam. OK with caustic solutions, dilute acids, ketones and alcohols. Recommended for use with CIP Sanitizing Agent OXONIA