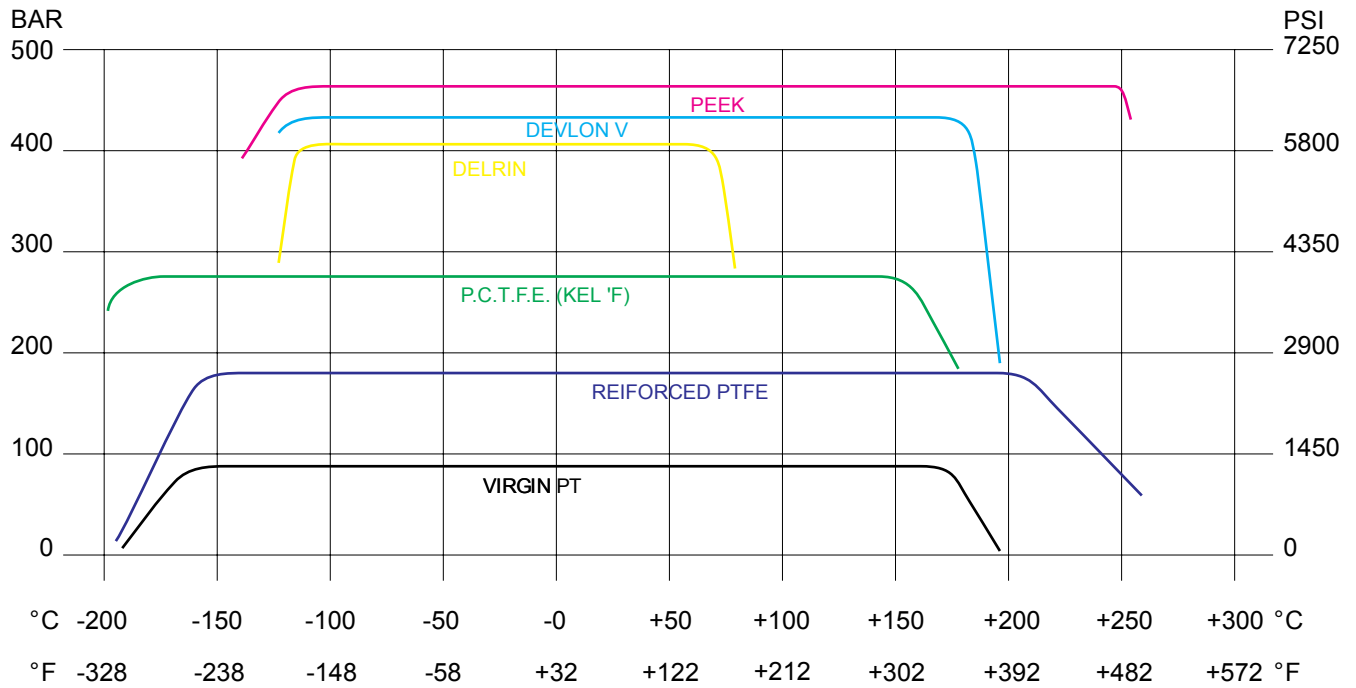
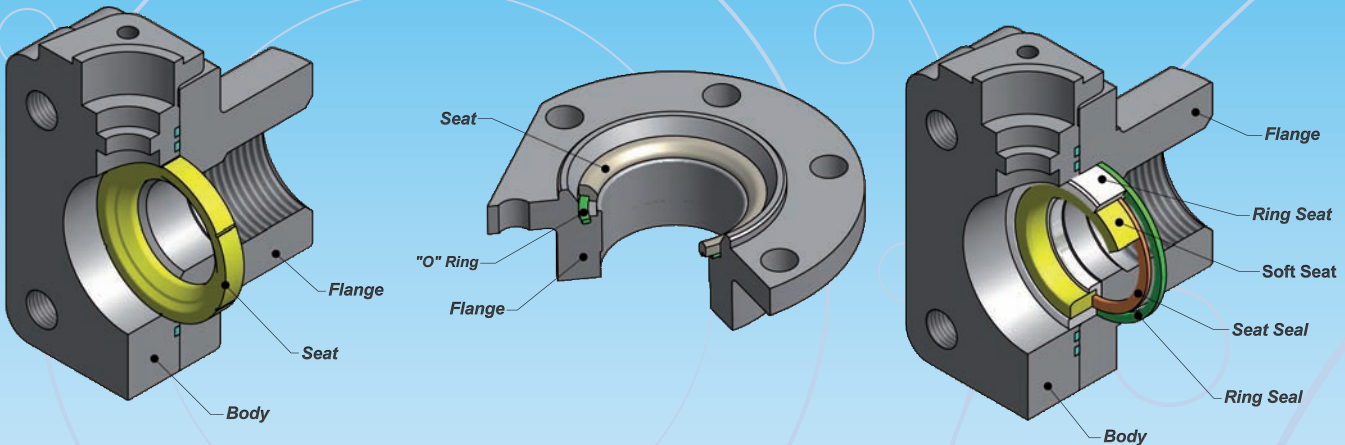


PRESSURE/TEMPERATURE LIMITATIONS OF SOFT SEAT INSERT SEAT MATERIAL

TRUNNION MOUNT



SEATS AND SEALS MATERIALS



SEAT MATERIALS

STARLINE CODE	MATERIAL TYPE	TEMPERATURE RANGE		APPLICATION	RECCOMENDATIONS
		°C	°F		
STANDARD	S REINFORCED PTFE 20% Carbon + 5% Graphite	-190 +260	-310 +500	Medium pressure Low/High temperature	Higher temperature and Pressure than Virgin PTFE. Good for Steam Service
	T VIRGIN PTFE	-196 +200	-319 +392	Low pressure Low torque – Low temperature	All services subject to temperature limitation.
	B REINFORCED PTFE +BRONZE	-196 +250	-310 +482	Medium pressure Low/High temperature	Auto lubricant properties – recommended for steam
HIGH PERFORMANCE	N DEVLOX – V POLYAMIDE – NYLON	-100 +155	-148 +311	High pressure High temp – Low temperature	H2S and Hydrocarbons
	G GRAPHITE	-90 +350	-130 +662	Low pressure – High temperature	Not suitable for high cycles or automated valves.
	D DELTRIN ACETAL RESIN	-70 +95	-94 +203	High pressure Low temperature	Hydrocarbons. Nace. Co: Do not use for oxygen
	P PEEK POLYETHER KETONE	-80 +220	-62 +428	High pressure High temperature	Hydrocarbons. Nace. For Tobacco and Nuclear Service
	E VESPEL SP 21 POLYIMIDE	-200 +260	-328 +500	High pressure High temperature	Good Chemical Resistance. For Gas, Oil, Petroleum. Not for Steam
	U UHMWPE POLYETHYLENE	-150 +150	-240 +300	Low pressure Low torque	Food and Tobacco industries. Nuclear service
	K KELF POTFE	-196 +150	-319 +302	High pressure Low temperature	Like virgin pite but improved resistance to nitric acid, hydrofluoric acid and liquid oxygen.
	Y PFA	-60 +250	-76 +482	Medium pressure Low/Medium temperature	Lower Porosity – Particularly Good to Avoid Polymerisation
	M METAL SEAT (tungsten carbide or chrome carbide)	-200 +500	-328 +932	High pressure – High temperature	Abrasion and high temperature applications

SEAL MATERIALS

STARLINE CODE	MATERIAL TYPE		TEMPERATURE RANGE °C		APPLICATION
"O" RINGS	N NITRILE	NBR	-30	+120 CONTINUOUS +150 INTERMITTENT	Water
	H HYDROGENATED NITRILE	HNBR	-46	+160 CONTINUOUS +180 INTERMITTENT	H2S, crude oil, hydrocarbons, small concentration of methanols
	E MODIFIED HYDROGENATED NITRILE	HNBR	-55	+160 CONTINUOUS +180 INTERMITTENT	H2S, crude oil, hydrocarbons, small concentrations of methanols
	V FLUOROELASTOMERS (VITON B)	FKM	-20	+220 CONTINUOUS +230 INTERMITTENT	Sour gas, hydrocarbons
	V FLUOROELASTOMERS (VITON AED)	FKM	-29	+230 CONTINUOUS +250 INTERMITTENT	Sour gas, hydrocarbons
	V FLUOROELASTOMERS (VITON GLT)	FKM	-46	+220 CONTINUOUS +250 INTERMITTENT	Sour gas, hydrocarbons
	C PERFLUOROELASTOMERS (CHEMRAZ 526)	FFKM	-25	+315 CONTINUOUS +350 INTERMITTENT	Sour gas, hydrocarbons, high % of methanol
	K PERFLUOROELASTOMERS (KALREZ)	FFKM	-25	+325	Sour gas and corrosive fluids
	A AFLAS	FEPM	+5	+200	Amine / Methanol service
	I SILICON+PFA		-60	+250	Low temperature applications/ Good Chemical Resistance
SPECIAL	G EXPANDED GRAPHITE		-240	+680	Used on Metal Seated High Temperature valves
	L LIPSEAL		-196	+260	Good for Chemical Resistance

FIRE SAFE SEAL

STARLINE CODE	MATERIAL TYPE	TEMPERATURE RANGE °C		APPLICATION
G	GRAPHITE	-200	+400	All - excluding clean services

Values indicated are the original values given by the manufacturers. Additional limitation to these values shall be considered based on the size of valve, seat construction and valve operating pressure.