

Technical information

Seal materials

Abbreviation (DIN ISO 1629)	Generic designation	Trade name (registered Trademarks)	Plastic properties
PTFE	Polytetrafluorethylene	Teflon Hostaflon Fluon	Thermoplastic
PVDF	Polyvinyl-diene-fluoride	Solef Dyflor	Thermoplastic
PCTFE	Polychlorotrifluor-ethylene	Kel-F Neoflon Aclar	Thermoplastic
POM	Polyoxymethylene/Polyacetal	Delrin Hostaform C Ultraform	Thermoplastic
PEEK	Polyether-ether-ketone	Victrex Hostatec	Thermoplastic
PAI	Polyamide	Torlon	Thermoplastic
PI	Polyimide	Vespel	Thermoplastic
NBR	Nitrile-butadien-rubber	Perbunan Chemigum Hycar Elaprim Krynac JSR-N	Elastomer
HNBR	Hydro nitrile- butadien-rubber	Therban Zetpol	Elastomer
EPDM	Ethylene-propylene-rubber	Buna AP Vistalon Dutral Keltan	Elastomer
FKM	Fluor-rubber	Viton Tecnoflon Fluorel	Elastomer
FFKM	Perfluor-rubber	Kalrez Chemraz Parofluor Isolast Simriz	Elastomer
PUR	Polyurethane-rubber	Vulkollan Desmopan Moltopren Elastollan	Elastomer

Abbreviation (DIN ISO 1629)	Applications	Temperature range (check pressure/ temperature diagram)	Special properties
PTFE	Ball seal	-200°C to +260°C	High chemical and temperature resistance; good slip properties. Modifying the crosskage can extend the application range to 250°C or 315 bar.
PVDF	Ball seal	-40°C to +150°C	Mechanical properties similar to PTFE; greater stiffness than PTFE. Thermal loading capabilities lower than PTFE
PCTFE	Ball seal	-240°C to +150°C	Mechanical properties similar to PTFE; greater stiffness than PTFE. Thermal loading capabilities lower than PTFE
POM	Ball seal	-40°C bis +100°C	High strength and stiffness, good creep strength, low humidity absorption, hydrolytic resistance (up to 60°C)
PEEK	Ball seal	-40°C to +260°C	Excellent chemical and hydrolytic resistance, good creep strength even at higher temperature, very good resistance to wear under varying operating conditions
PAI	Ball seal	-190°C to +260°C	Excellent retention of mechanical stability, stiffness and creep strength at broad temperature range, excellent friction and abrasion performance, excellent UV-resistance
PI	Ball seal	-273°C to +255°C	High mechanical strength, stiffness and creep strength even at higher temperature, good abrasion performance
NBR	Body- and stem-seal	-30°C to +100°C	High density, low deformation under pressure
HNBR	Body- and stem-seal	-35°C to +150°C	Excellent physical properties and good abrasion resistance even at higher temperature, low deformation under pressure, good resistance against steam, oxygen and ozone
EPDM	Body- and stem-seal	-50°C to +150°C	Excellent swelling resistance with heating-circuit water and steam, very good ozone-, aging- and atmospheric condition resistance
FKM	Body- and stem-seal	-25°C to +200°C	Good chemical stability and high temperature resistance, excellent tightness and low deformation under pressure
FFKM	Body- and stem-seal	-15°C to +300°C	Elasticity and sealing properties aligned with chemical inertness and thermal stability, high temperature stress- and chemical resistance
PUR	Body- and stem-seal	-30°C to +80°C	Very high mechanical stability, extraordinary abrasion performance, high tear and impact strength, high gas closeness, very good ozone-, aging- and atmospheric condition resistance