| Seal Material | Other Common Names | Description | Applications | Temperature Range | Option Code |
|------------------------------------|---|--|---|----------------------|----------------|
| Buna-N | Nitrile, acrylonitrile Butadiene Rubber | An economical soft synthetic rubber with good mechanical performance. Resistant to air, many gases, water, most basic oils (petroleum, mineral oil, vegetable oil), lubricants, some fuels, dilute acids, alkalis, and solvents. | Often used for gaskets and o-rings in pneumatic, hydraulic, vacuum, water, and fuel systems. | -30° F to +250° F | |
| Dry Air or Gas Service | Molybdenum Disulfide Coated Buna-N, MoS₂/NBR | An externally lubricated soft synthetic Buna-N rubber with a lower coefficient of friction for use in dry or non-lube dynamic applications. MoS ₂ /NBR exhibits better mechanical wear properties in non-lube pneumatic applications compared to plain Buna-N. | Used for dynamic gaskets and o-rings in dry pneumatic, vacuum, or gas systems. Use in place of Buna-N for non-lubricated compressed air, dry nitrogen, or other dry gases. Also good for low-pressure applications to reduce seal stiction (stick-slip). | -30° F to +250° F | -25 |
| Viton® | Fluorel®, Technoflon®, (FKM) | A synthetic rubber and fluorocarbon elastomer commonly used in seals, gaskets, and other molded goods. It has a significantly higher density than most types of rubber and is compatible with hydrocarbons, but not ketones such as acetone, methyl ethyl ketone, or ester solvents. It has a high-temperature resistance. Because of its high density, good wear characteristics are exhibited, especially under heavy loads exerted by high pressures. | Used for seals where high temperature and/or chemical resistance are required, and the fluid media is not compatible with Buna-N. | 0° F to +400° F | -26 |
| Chemical / High Temp Service | Teflon® + Viton® | Poppet seal and stem seal are made of Teflon® (PTFE) and the balance of elastomeric seals is Viton® (FKM). This combination is best for high temperature and/or high-pressure fluids not compatible with Buna-N or Viton®. | Use with high-temperature and/or high-pressure gases and liquids, phosphate esters, and glycol oils. | 0° F to +400° F | -28 |
| Ethylene Propylene | EPR, EPM, Nordel™, Keltan®, Royalene® | A synthetic copolymer of ethylene and propylene with good chemical and temperature properties. It is resistant to chemicals that are phosphate- ester-based including hydraulic fluids, silicone oils and greases, glycol and silicon-based brake fluids, sodium, and potassium alkalis as well as hot water up to 300° F. It is not compatible with petroleum-based lubricants and oils. | Excellent for phosphate-ester fluids, acids, and solvents (such as MEK and Acetone) and where operation at extremely cold temperatures are required. | -70° F to +300° F | -29 |
| Steam Service | Teflon® + EPR + Viton®) | Steam service with high-temperature water. The valve will be outfitted with Teflon® Poppet Seal and Stem Seal, Ethylene Propylene Seal on Poppet Guide, Viton® U-cup on Pilot Piston | 100 PSI or less . Consult the factory before ordering any valves for steam service. | 0° F to +250° F | -32 |