

## Encapsulated O-Rings

### O-Ring Components



An encapsulated o-ring is a two component circular seal with a round cross section. The elastomers impart memory to the seal and are encapsulated in a Teflon jacket. The encapsulation protects the elastomer from hostile environments.

Compared with solid o-rings, Teflon encapsulated o-rings function in a broader range of environments. FEP Teflon combines superb corrosion resistance, sealing integrity and an operating temperature range of -450 to +400 °F (-267 to +205 °C). PFA Teflon, a fluorocarbon copolymer similar to FEP, also provides greatly improved mechanical and creep properties at higher operating temperatures: -450 to +500 °F (-267 to +260 °C).

### Viton®

Viton is a fluoroelastomer compound with exceptional mechanical properties. The Viton elastomer gives the o-rings a faster recovery rate. Viton has a Shore A hardness of 75 with an operating temperature range of -10 to +300 °F (-23 to +150 °C).

### Silicone

Silicone is well suited for applications demanding lighter compressive forces and more extreme temperatures. Silicone has a Shore A hardness of 70 and an operating temperature range of -80 to +500 °F (-62 to +260 °C).

### Typical Applications

- Mechanical Seals
- Seals in Diaphragm Pumps
- Cryogenics
- Mechanical Pumps
- Filter Elements
- Filter Housings
- Reusable Syringes
- Air-Operated Vents
- Gas Service
- Corrosive Fluid Seals
- High Purity Water
- Low Pressure, Quick Disconnect Piping Systems
- Vacuum Service
- Relief and Emergency Valves
- Large Diameter Access Covers
- Pressure Vessels
- Compressors
- Face Flange Seals
- Glass Heat Exchanger Tube / Tube sheet Seals
- Dairy and Beverage Service
- Butterfly Valves

### Encapsulation Benefits

- Corrosion Resistant
- Non-flammable
- Enclosed Core
- Abrasion Resistant
- Impact Strength
- Low Absorption
- Low Ovality
- Reusable
- Permeability
- Smooth Surface
- Uniform Dimensions
- Excellent Resilience
- Live Seal
- Chemically Inert
- No Swelling