

Seals: Materials of Construction

Sun Hydraulic's cartridge valve seals (and manifold/body gaskets when present) are offered in the following customer-specified material choices.

Buna N (Nitrile) O-rings (10-year shelf life)



- 70-durometer, B46-70 (31.5% Nitrile) or N470 (30-31% Nitrile) or equivalent
- 90-durometer, C-90-90 (39% Nitrile or equivalent)
- Manufacturer's temperature range rating: -22° to 230° F (-30° to 110° C)
- O-rings are black in color
- Cartridges configured with Buna N seals will also contain one or more of the following seal materials:
 - Hytrel Polyester Elastomer back-up rings
 - PTFE back-up rings and/or Glyd® Ring
 - Polyurethane

Fluorocarbon Rubber FKM (Viton®, product of E.I. DuPont) O-rings (20-year shelf life)



- 75-durometer, V14-75 Fluorocarbon or equivalent
- 90-durometer, V23-90 Fluorocarbon or equivalent
- Manufacturer's temperature range rating: -10° to 250° F (-20° to 120° C)
- O-rings are brown in color
- Cartridges configured with Viton® seals will also contain one or more of the following internal seal materials:
 - Viton® back-up rings
 - PTFE back-up rings and/or Glyd® Ring



EPDM O-rings (No limited shelf life)

- 80-durometer EPDM rubber O-rings
- Manufacturer's temperature range rating: -70° to 250° F (-60° to 120° C)
- O-rings are purple in color
- Cartridges configured with EPDM seals will also contain the following seal materials:
 - PTFE back-up rings and/or Glyd® Ring

See our EPDM seals page for more information.



Polyurethane O-rings (10-year shelf life)

- Available for high cycle/higher pressure applications, providing more abrasion resistance for longer seal life
- 90-durometer, hydrolytically stabilized for water compatibility
- Manufacturer's temperature range rating: -22° to 260° F (-30° to 125° C)
- O-rings are teal in color
- Hytrel Polyester Elastomer back-up rings off white in color

Note: Seal kits include only the external seals of the cartridge. To order seal kits, see our Cartridge Seal Kits listings page.

Specifying a Material at Time of Order

When a material choice is available for a given product, instructions for specifying the choice are shown in the "Configuration" section of the product details page.