

O-Rings

O-Ring Materials and Durometers Available as Standard

O-Rings are available in a choice of six basic materials, each in a range of Durometer (Shore A) Hardnesses as detailed.

All materials are compounded under stringent quality control for uniformity of excellent physical properties and are qualified to Government, Military, Space Programs, Automotive, F.D.A., U.L., Industrial and Commercial specifications as required.

To Determine Material:

Base your selection on

- (1) How the unit will operate. Will it be static or dynamic sealing?
- (2) The media to be sealed (fluid, gas, specific chemicals, etc.) Or will the O-Ring have some other use?
- (3) Temperature extremes, length of exposure
- (4) Pressure range (higher pressure requires higher durometer)

BUNA-N (NITRILE) (NBR)

MATERIAL DESIGNATION BN DUROMETERS 40 thru 90°

The standard for most general applications; petroleum base lubricants, hydraulic oils, gasoline, fuels, alcohol, L.P. gases, water and many other media.

Temperature Range: -65 to +225°F (-55 to +107°C)

When ordering Compound & Durometer are shown after ARP No.
Example - N 70 or N 90

NEOPRENE (CHLOROPRENE) (CR)

MATERIAL DESIGNATION C DUROMETERS 40 thru 90°

Recommended for refrigeration, freon gases, carbon dioxide gases, chlorine, ozone, sunlight exposure and for use as drive belts. F.D.A. approved for food and beverages. Odorless, tasteless, non-toxic.

Temperature Range: -45 to +300°F (-43 to +150°C)

When ordering Compound & Durometer are shown after ARP No.
Example - C 70

ETHYLENE-PROPYLENE (EPDM)

MATERIAL DESIGNATION EP DUROMETERS 40 thru 90°

For hot water, steam, acids, alcohols, alkalis, ketones, phosphate esters, brake fluids, drive belts and exposure to oxygen, ozone and weathering.

Temperature Range: -70 to +275°F (-57 to +135°C)

When ordering Compound & Durometer are shown after ARP No.
Example - EP 75

FLUOROCARBON (VITON) (FLUOREL)

MATERIAL DESIGNATION V DUROMETERS 40 thru 90°

High temperature toughness, stability and compatibility with a wide range of fluid and chemical types including acids, oils, fuels, solvents and gases.

Temperature Range: -15 to +500°F (-26 to +260°C)

When ordering Compound & Durometer are shown after ARP No.
Example - V 75

SILICONE

MATERIAL DESIGNATION S DUROMETERS 40 thru 90°

Compatible with a variety of fluids, air, oxygen, ozone and other media for extremes of low and high temperature applications.

Temperature Range: -65 to +450°F (-54 to +232°C)

When ordering Compound & Durometer are shown after ARP No.
Example - S 70

POLYURETHANE

MATERIAL DESIGNATION P DUROMETERS 40 thru 90°.

Extremely high tensile abrasion resistance with elongation that allows easy installation. Highly recommended for cylinder design for a wide variety of hydraulic fluids.

Temperature Range: 40 to +180°F (-40 to 82°C)

When ordering Compound & Durometer are shown after ARP No.
Example - P 70

Fluid Compatibility Chart

Polymer Key	Polymer	Temperature Range	
Code		°F	°C
A	Polyacrylate	-5 to + 350	-20 to + 177
B	Butyl	-75 to + 250	-59 to + 120
C	Neoprene (Chloroprene)	-45 to +250/300	-43 to + 120/150
E	Ethylene Propylene	-70 to + 275/400	-57 to + 135/205
G	SBR	-70 to +225	-57 to + 107
L	Fluorosilicone	-100 to +350/400	-73 to +177/205
M		-30 to +250	-34 to + 121
N	Nitrile (BUNA N)	-65 to + 225	-55 to + 107
P	Polyurethane	-40 to + 180	-40 to + 82
S	Silicone	-65 to + 450	-54 to + 232
V	Fluorocarbon	-15 to +400/500	-26 to +205/260

Other sizes and materials available on request - please enquire. Standard terms and conditions apply.