



O-RINGS

ETHYLENE PROPYLENE RUBBER (EPM, EPDM)
Temperature range: -65° to +300°F (-54° to +149°C).

EP is recommended for:

- Phosphate ester base hydraulic fluids
- Steam (to 400°F) (204°C)
- Water
- Silicone oils and greases
- Dilute acids
- Dilute alkalis
- Ketones (MEK, acetone)
- Alcohols

EP is not recommended for:

- Petroleum oils
- Di-ester base lubricants

SILICONE RUBBER (SI)

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

Silicones are recommended for:

- Dynamic sealing application
- Dry heat
- High-aniline point oils
- Chlorinated di-phenyls

Silicones are not recommended for:

- Most petroleum fluids
- Ketones (MEK, acetone)
- Water and steam

FLUOROCARBON RUBBER VITON (FKM)

Temperature range: -15° to +400°F (-29° to +204°C).

FKM is recommended for:

- Petroleum oils
- Di-ester base lubricants
- Silicate ester base lubricants
- Silicone fluids and greases
- Halogenated hydrocarbons (carbon tetrachloride, trichloroethylene)
- Selected phosphate ester fluids
- Acids

FKM is not recommended for:

- Ketones (MEK, acetone)
- Skydrol fluids

NITRILE OR BUNA N (NBR)

Temperature range of -65° to +275°F (-54° to +135°C).

Nitrile is recommended for:

- General purpose sealing
- Petroleum oils and fluids
- Cold water
- Silicone greases and oils
- Di-Ester base lubricants
- Ethylene Glycol base fluids (Hydrolubes)

Nitrile is not recommended for:

- Halogenated hydrocarbons (carbon, tetrachloride, trichloroethylene)
- Nitro hydrocarbons (nitrobenzene, aniline)
- Phosphate ester hydraulic fluids (Skydrol, Fyrquel, Pydraul)
- Ketones (MEK, acetone)
- Strong acids
- Ozone

This information is provided as a guideline and quick reference for approximate identification of an O-ring. There may be many factors that need to be considered when determining proper O-ring material. Further investigation for a given application may be required. In addition, to more accurately determine the dimensions of an O-ring, precision measuring equipment (such as Calipers) should be used.

HOW TO USE THIS CHART

Lay O-ring over cross-section pictorials to determine approximate cross-section diameter. (For best results cut O-ring and place round cross-section onto pictorial.)

STANDARD CROSS-SECTIONS PER AS568A

○
.031

○
.039

□
.041
QUAD

○
.051

○
.063

○
.079

○
.080

OTHER AVAILABLE CROSS-SECTIONS

○
.040

○
.050

○
.060

○
.070

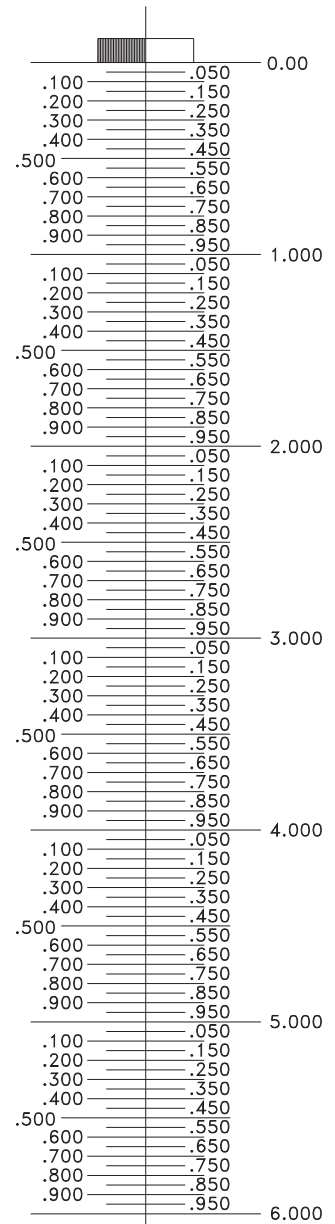
○
.103

○
.139

○
.210

HOW TO USE THIS CHART

1. Align outer edge of O-ring to the 0.00 line.
2. Read opposite edge of O-ring for approximate outside diameter (O.D.).



Source of information: Parker O-Ring Handbook, Parker Seals, ORD5700, Parker Hannifin Corporation, Cleveland, OH