



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



.040



.050



.060



.070



.103



.139



.210

OTHER AVAILABLE CROSS-SECTIONS



.031



.039



.041

QUAD



.051



.063



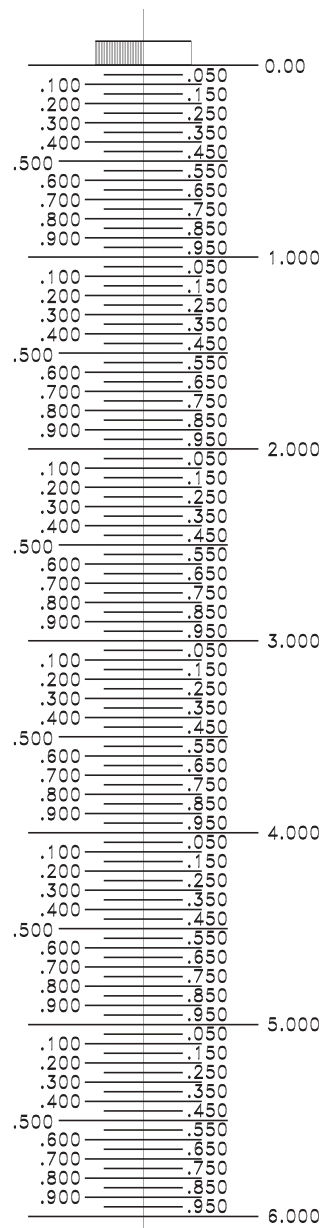
.079



.080

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



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As of March, 2009

O-RING CHART BY SIZE

| RPI PART # | X-SEC | ID | OD | IND PART # | MATERIAL | DURO | QTY |
|------------------------|--------|------|------|------------|------------------|------|-----|
| RPO324 | .031 | .239 | .301 | Custom | Nitrile (Buna N) | 70 | 12 |
| RPO328 | .031 | .288 | .351 | Metric | Nitrile (Buna N) | 70 | 12 |
| RPO617 | .032 | .165 | .229 | Custom | Nitrile (Buna N) | 70 | 12 |
| RPO493 | .038 | .032 | .108 | Custom | EPDM | 70 | 12 |
| RPO309 | .040 | .029 | .109 | AS568-001 | Nitrile (Buna N) | 70 | 12 |
| RPO308 | .040 | .070 | .150 | 5-051 | Nitrile (Buna N) | 70 | 12 |
| RPO496 | .040 | .070 | .150 | Custom | EPDM | 70 | 12 |
| RPO494 | .040 | .176 | .256 | Custom | EPDM | 70 | 12 |
| RPO497 | .040 | .176 | .256 | Custom | Viton | 75 | 12 |
| RPO319 | .041-Q | .028 | .110 | Q4001 | Nitrile (Buna N) | 70 | 12 |
| RPO310 | .050 | .042 | .142 | AS568-002 | Nitrile (Buna N) | 70 | 12 |
| RPO352 | .050 | .042 | .142 | AS568-002 | Viton | 90 | 12 |
| RPO486 | .050 | .042 | .142 | AS568-002 | EPDM | 70 | 12 |
| RPO450 | .051 | .547 | .649 | 5-001 | Silicone | 70 | 6 |
| RPO311 | .060 | .056 | .176 | AS568-003 | Nitrile (Buna N) | 70 | 12 |
| RPO484 | .060 | .056 | .176 | AS568-003 | Viton | 75 | 12 |
| RPO487 | .060 | .056 | .176 | AS568-003 | EPDM | 70 | 12 |
| RPO495 | .062 | .400 | .524 | Custom | Viton | 75 | 12 |
| RPO301 | .070 | .489 | .629 | AS568-014 | Nitrile (Buna N) | 70 | 12 |
| RPO312 | .070 | .070 | .210 | AS568-004 | Nitrile (Buna N) | 70 | 12 |
| RPO313 | .070 | .101 | .241 | AS568-005 | Nitrile (Buna N) | 70 | 12 |
| RPO489 | .070 | .101 | .241 | AS568-005 | EPDM | 70 | 12 |
| RPO307 | .070 | .114 | .254 | AS568-006 | EPDM | 70 | 12 |
| RPO320 | .070 | .114 | .254 | AS568-006 | Viton | 70 | 12 |
| RPO609 | .070 | .114 | .254 | AS568-006 | Silicone | 70 | 12 |
| RPO314 | .070 | .145 | .285 | AS568-007 | Nitrile (Buna N) | 70 | 12 |
| RPO342 | .070 | .145 | .285 | AS568-007 | Viton | 70 | 12 |
| RPO359 | .070 | .145 | .285 | AS568-007 | EPDM | 70 | 6 |
| RPO306 | .070 | .176 | .316 | AS568-008 | EPDM | 70 | 12 |
| RPO327 | .070 | .176 | .316 | AS568-008 | Natural Silicone | 70 | 12 |
| RPO330 | .070 | .176 | .316 | AS568-008 | Teflon | n/a | 6 |
| RPO315 | .070 | .208 | .348 | AS568-009 | Nitrile (Buna N) | 70 | 12 |
| RPO339 | .070 | .208 | .348 | AS568-009 | Viton | 70 | 12 |
| RPO492 | .070 | .208 | .348 | AS568-009 | Silicone | 70 | 12 |
| RPO305 | .070 | .239 | .379 | AS568-010 | Nitrile (Buna N) | 70 | 12 |
| RPO329 | .070 | .239 | .379 | AS568-010 | Teflon | n/a | 6 |
| RPO386 | .070 | .239 | .379 | AS568-010 | Silicone | 70 | 6 |
| RPO304 | .070 | .301 | .441 | AS568-011 | Nitrile (Buna N) | 70 | 12 |
| RPO331 | .070 | .301 | .441 | AS568-011 | Neoprene | 70 | 6 |
| RPO343 | .070 | .301 | .441 | AS568-011 | Silicone | 70 | 12 |
| RPO360 | .070 | .301 | .441 | AS568-011 | EPDM | 80 | 6 |
| RPO385 | .070 | .301 | .441 | AS568-011 | Viton | 60 | 12 |
| RPO303 | .070 | .364 | .504 | AS568-012 | Nitrile (Buna N) | 70 | 12 |
| RPO498 | .070 | .364 | .504 | AS568-012 | EPDM | 70 | 12 |
| RPO302 | .070 | .426 | .566 | AS568-013 | Nitrile (Buna N) | 70 | 12 |

| RPI PART # | X-SEC | ID | OD | IND PART # | MATERIAL | DURO | QTY |
|------------------------|-------|-------|-------|------------|------------------|------|-----|
| RPO388 | .070 | .426 | .566 | AS568-013 | Silicone | 70 | 6 |
| RPO485 | .070 | .426 | .566 | AS568-013 | EPDM | 70 | 12 |
| RPO326 | .070 | .489 | .629 | AS568-014 | Viton | 70 | 12 |
| RPO488 | .070 | .489 | .625 | AS568-014 | EPDM | 70 | 12 |
| RPO608 | .070 | .489 | .629 | AS568-014 | Silicone | 70 | 12 |
| RPO316 | .070 | .551 | .691 | AS568-015 | Nitrile (Buna N) | 70 | 12 |
| RPO341 | .070 | .551 | .691 | AS568-015 | Viton | 70 | 12 |
| RPO439 | .070 | .551 | .691 | AS568-015 | EPDM | 70 | 6 |
| RPO317 | .070 | .614 | .754 | AS568-016 | Nitrile (Buna N) | 70 | 12 |
| RPO318 | .070 | .676 | .816 | AS568-017 | Nitrile (Buna N) | 70 | 12 |
| RPO334 | .070 | .739 | .879 | AS568-018 | Nitrile (Buna N) | 70 | 12 |
| RPO340 | .070 | .739 | .879 | AS568-018 | Viton | 70 | 12 |
| RPO490 | .070 | .739 | .879 | AS568-018 | EPDM | 70 | 12 |
| RPO325 | .070 | .801 | .941 | AS568-019 | Nitrile (Buna N) | 70 | 12 |
| RPO355 | .070 | .801 | .941 | AS568-019 | Silicone | 70 | 6 |
| RPO444 | .070 | .801 | .941 | AS568-019 | EPDM | 70 | 12 |
| RPO438 | .070 | .864 | 1.004 | AS568-020 | EPDM | 70 | 12 |
| RPO354 | .070 | .926 | 1.066 | AS568-021 | Silicone | 70 | 6 |
| RPO322 | .070 | 1.051 | 1.191 | AS568-023 | Nitrile (Buna N) | 70 | 12 |
| RPO390 | .070 | 1.114 | 1.254 | AS568-024 | Silicone | 70 | 6 |
| RPO607 | .070 | 1.239 | 1.379 | AS568-026 | Silicone | 70 | 12 |
| RPO335 | .070 | 1.489 | 1.629 | AS568-029 | Nitrile (Buna N) | 70 | 12 |
| RPO321 | .070 | 2.114 | 2.254 | AS568-034 | Nitrile (Buna N) | 70 | 12 |
| RPO344 | .070 | 2.239 | 2.379 | AS568-035 | Nitrile (Buna N) | 70 | 6 |
| RPO491 | .103 | .206 | .412 | AS568-107 | EPDM | 70 | 12 |
| RPO448 | .103 | .237 | .443 | AS568-108 | EPDM | 70 | 6 |
| RPO323 | .103 | .362 | .568 | AS568-110 | Nitrile (Buna N) | 70 | 12 |
| RPO387 | .103 | .362 | .568 | AS568-110 | Silicone | 70 | 6 |
| RPO395 | .103 | .362 | .568 | AS568-110 | EPDM | 70 | 12 |
| RPO356 | .103 | .424 | .630 | AS568-111 | Nitrile (Buna N) | 70 | 12 |
| RPO357 | .103 | .424 | .630 | AS568-111 | EPDM | 70 | 12 |
| RPO353 | .103 | .487 | .693 | AS568-112 | Nitrile (Buna N) | 70 | 12 |
| RPO358 | .103 | .549 | .755 | AS568-113 | EPDM | 80 | 6 |
| RPO610 | .103 | .924 | 1.130 | AS568-119 | Silicone | 70 | 12 |
| RPO389 | .103 | 1.049 | 1.255 | AS568-121 | Silicone | 70 | 6 |
| RPO605 | .103 | 1.174 | 1.380 | AS568-123 | Silicone | 70 | 12 |
| RPO346 | .103 | 2.425 | 2.631 | AS568-143 | Nitrile (Buna N) | 70 | 12 |
| RPO612 | .103 | 3.237 | 3.443 | AS568-152 | Viton | 70 | 3 |
| LIQ005 | .103 | 3.987 | 4.193 | AS568-155 | Nitrile (Buna N) | 70 | 1 |
| RPO244 | .139 | .296 | .574 | AS568-203 | Silicone | 60 | 6 |
| RPO350 | .139 | .796 | 1.074 | AS568-211 | Nitrile (Buna N) | 70 | 12 |
| RPO606 | .139 | .859 | 1.137 | AS568-212 | Silicone | 70 | 12 |
| RPO613 | .139 | 3.484 | 3.762 | AS568-238 | Viton | 70 | 12 |
| RPO345 | .139 | 4.359 | 4.637 | AS568-245 | Nitrile (Buna N) | 70 | 6 |
| RPO361 | .210 | .912 | 1.332 | AS568-317 | Nitrile (Buna N) | 70 | 6 |

O-rings are sold separately in quantities indicated above. For O-ring Kits, see pages 503-504.

O-RING CHART BY PART

| RPI PART # | X-SEC | ID | OD | IND PART # | MATERIAL | DURO | QTY |
|------------------------|--------|-------|-------|------------|------------------|------|-----|
| L10005 | .103 | 3.987 | 4.193 | AS568-155 | Nitrile (Buna N) | 70 | 1 |
| RPO244 | .139 | .296 | .574 | AS568-203 | Silicone | 60 | 6 |
| RPO301 | .070 | .489 | .629 | AS568-014 | Nitrile (Buna N) | 70 | 12 |
| RPO302 | .070 | .426 | .566 | AS568-013 | Nitrile (Buna N) | 70 | 12 |
| RPO303 | .070 | .364 | .504 | AS568-012 | Nitrile (Buna N) | 70 | 12 |
| RPO304 | .070 | .301 | .441 | AS568-011 | Nitrile (Buna N) | 70 | 12 |
| RPO305 | .070 | .239 | .379 | AS568-010 | Nitrile (Buna N) | 70 | 12 |
| RPO306 | .070 | .176 | .316 | AS568-008 | EPDM | 70 | 12 |
| RPO307 | .070 | .114 | .254 | AS568-006 | EPDM | 70 | 12 |
| RPO308 | .040 | .070 | .150 | 5-051 | Nitrile (Buna N) | 70 | 12 |
| RPO309 | .040 | .029 | .109 | AS568-001 | Nitrile (Buna N) | 70 | 12 |
| RPO310 | .050 | .042 | .142 | AS568-002 | Nitrile (Buna N) | 70 | 12 |
| RPO311 | .060 | .056 | .176 | AS568-003 | Nitrile (Buna N) | 70 | 12 |
| RPO312 | .070 | .070 | .210 | AS568-004 | Nitrile (Buna N) | 70 | 12 |
| RPO313 | .070 | .101 | .241 | AS568-005 | Nitrile (Buna N) | 70 | 12 |
| RPO314 | .070 | .145 | .285 | AS568-007 | Nitrile (Buna N) | 70 | 12 |
| RPO315 | .070 | .208 | .348 | AS568-009 | Nitrile (Buna N) | 70 | 12 |
| RPO316 | .070 | .551 | .691 | AS568-015 | Nitrile (Buna N) | 70 | 12 |
| RPO317 | .070 | .614 | .754 | AS568-016 | Nitrile (Buna N) | 70 | 12 |
| RPO318 | .070 | .676 | .816 | AS568-017 | Nitrile (Buna N) | 70 | 12 |
| RPO319 | .041-Q | .028 | .110 | Q4001 | Nitrile (Buna N) | 70 | 12 |
| RPO320 | .070 | .114 | .254 | AS568-006 | Viton | 70 | 12 |
| RPO321 | .070 | 2.114 | 2.254 | AS568-034 | Nitrile (Buna N) | 70 | 12 |
| RPO322 | .070 | 1.051 | 1.191 | AS568-023 | Nitrile (Buna N) | 70 | 12 |
| RPO323 | .103 | .362 | .568 | AS568-110 | Nitrile (Buna N) | 70 | 12 |
| RPO324 | .031 | .239 | .301 | Custom | Nitrile (Buna N) | 70 | 12 |
| RPO325 | .070 | .801 | .941 | AS568-019 | Nitrile (Buna N) | 70 | 12 |
| RPO326 | .070 | .489 | .629 | AS568-014 | Viton | 70 | 12 |
| RPO327 | .070 | .176 | .316 | AS568-008 | Natural Silicone | 70 | 12 |
| RPO328 | .031 | .288 | .351 | Metric | Nitrile (Buna N) | 70 | 12 |
| RPO329 | .070 | .239 | .379 | AS568-010 | Teflon | n/a | 6 |
| RPO330 | .070 | .176 | .316 | AS568-008 | Teflon | n/a | 6 |
| RPO331 | .070 | .301 | .441 | AS568-011 | Neoprene | 70 | 6 |
| RPO334 | .070 | .739 | .879 | AS568-018 | Nitrile (Buna N) | 70 | 12 |
| RPO335 | .070 | 1.489 | 1.629 | AS568-029 | Nitrile (Buna N) | 70 | 12 |
| RPO339 | .070 | .208 | .348 | AS568-009 | Viton | 70 | 12 |
| RPO340 | .070 | .739 | .879 | AS568-018 | Viton | 70 | 12 |
| RPO341 | .070 | .551 | .691 | AS568-015 | Viton | 70 | 12 |
| RPO342 | .070 | .145 | .285 | AS568-007 | Viton | 70 | 12 |
| RPO343 | .070 | .301 | .441 | AS568-011 | Silicone | 70 | 12 |
| RPO344 | .070 | 2.239 | 2.379 | AS568-035 | Nitrile (Buna N) | 70 | 6 |
| RPO345 | .139 | 4.359 | 4.637 | AS568-245 | Nitrile (Buna N) | 70 | 6 |
| RPO346 | .103 | 2.425 | 2.631 | AS568-143 | Nitrile (Buna N) | 70 | 12 |
| RPO350 | .139 | .796 | 1.074 | AS568-211 | Nitrile (Buna N) | 70 | 12 |
| RPO352 | .050 | .042 | .142 | AS568-002 | Viton | 90 | 12 |

| RPI PART # | X-SEC | ID | OD | IND PART # | MATERIAL | DURO | QTY |
|------------------------|-------|-------|-------|------------|------------------|------|-----|
| RPO353 | .103 | .487 | .693 | AS568-112 | Nitrile (Buna N) | 70 | 12 |
| RPO354 | .070 | .926 | 1.066 | AS568-021 | Silicone | 70 | 6 |
| RPO355 | .070 | .801 | .941 | AS568-019 | Silicone | 70 | 6 |
| RPO356 | .103 | .424 | .630 | AS568-111 | Nitrile (Buna N) | 70 | 12 |
| RPO357 | .103 | .424 | .630 | AS568-111 | EPDM | 70 | 12 |
| RPO358 | .103 | .549 | .755 | AS568-113 | EPDM | 80 | 6 |
| RPO359 | .070 | .145 | .285 | AS568-007 | EPDM | 70 | 6 |
| RPO360 | .070 | .301 | .441 | AS568-011 | EPDM | 80 | 6 |
| RPO361 | .210 | .912 | 1.332 | AS568-317 | Nitrile (Buna N) | 70 | 6 |
| RPO385 | .070 | .301 | .441 | AS568-011 | Viton | 60 | 12 |
| RPO386 | .070 | .239 | .379 | AS568-010 | Silicone | 70 | 6 |
| RPO387 | .103 | .362 | .568 | AS568-110 | Silicone | 70 | 6 |
| RPO388 | .070 | .426 | .566 | AS568-013 | Silicone | 70 | 6 |
| RPO389 | .103 | 1.049 | 1.255 | AS568-121 | Silicone | 70 | 6 |
| RPO390 | .070 | 1.114 | 1.254 | AS568-024 | Silicone | 70 | 6 |
| RPO395 | .103 | .362 | .568 | AS568-110 | EPDM | 70 | 12 |
| RPO438 | .070 | .864 | 1.004 | AS568-020 | EPDM | 70 | 12 |
| RPO439 | .070 | .551 | .691 | AS568-015 | EPDM | 70 | 6 |
| RPO444 | .070 | .801 | .941 | AS568-019 | EPDM | 70 | 12 |
| RPO448 | .103 | .237 | .443 | AS568-108 | EPDM | 70 | 6 |
| RPO450 | .051 | .547 | .649 | 5-001 | Silicone | 70 | 6 |
| RPO484 | .060 | .056 | .176 | AS568-003 | Viton | 75 | 12 |
| RPO485 | .070 | .426 | .566 | AS568-013 | EPDM | 70 | 12 |
| RPO486 | .050 | .042 | .142 | AS568-002 | EPDM | 70 | 12 |
| RPO487 | .060 | .056 | .176 | AS568-003 | EPDM | 70 | 12 |
| RPO488 | .070 | .489 | .625 | AS568-014 | EPDM | 70 | 12 |
| RPO489 | .070 | .101 | .241 | AS568-005 | EPDM | 70 | 12 |
| RPO490 | .070 | .739 | .879 | AS568-018 | EPDM | 70 | 12 |
| RPO491 | .103 | .206 | .412 | AS568-107 | EPDM | 70 | 12 |
| RPO492 | .070 | .208 | .348 | AS568-009 | Silicone | 70 | 12 |
| RPO493 | .038 | .032 | .108 | Custom | EPDM | 70 | 12 |
| RPO494 | .040 | .176 | .256 | Custom | EPDM | 70 | 12 |
| RPO495 | .062 | .400 | .524 | Custom | Viton | 75 | 12 |
| RPO496 | .040 | .070 | .150 | Custom | EPDM | 70 | 12 |
| RPO497 | .040 | .176 | .256 | Custom | Viton | 75 | 12 |
| RPO498 | .070 | .364 | .504 | AS568-012 | EPDM | 70 | 12 |
| RPO605 | .103 | 1.174 | 1.380 | AS568-123 | Silicone | 70 | 12 |
| RPO606 | .139 | .859 | 1.137 | AS568-212 | Silicone | 70 | 12 |
| RPO607 | .070 | 1.239 | 1.379 | AS568-026 | Silicone | 70 | 12 |
| RPO608 | .070 | .489 | .629 | AS568-014 | Silicone | 70 | 12 |
| RPO609 | .070 | .114 | .254 | AS568-006 | Silicone | 70 | 12 |
| RPO610 | .103 | .924 | 1.130 | AS568-119 | Silicone | 70 | 12 |
| RPO612 | .103 | 3.237 | 3.443 | AS568-152 | Viton | 70 | 3 |
| RPO613 | .139 | 3.484 | 3.762 | AS568-238 | Viton | 70 | 3 |
| RPO617 | .032 | .165 | .229 | Custom | Nitrile (Buna N) | 70 | 12 |

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