



ASTM D2000 M2 BG714 A14 B14 EF11 EF21 EO14 EO34 F17

Imperial Nitrile 70 ShA O-Rings

Nitrile / NBR / Buna-N

Nitrile is the most cost effective and commonly available O-ring material. Ideal for use as seals for pumps, drive belts, and other general engineering applications in the hydraulic and pneumatic industry. NBR is good for applications where the O-ring is exposed to fats, greases and animal or vegetable oils. For applications requiring contact with diesel or temperatures higher than 120°C you may wish to consider RS Components FKM O-rings.

Colour: Black

Operating temperature range: -30°C to 90°C

| Physical Property | Test Method | Units | Typical Values |
|--|--------------------|-------------------|----------------|
| Hardness | ASTM D 1415 | IRHD | 71 |
| Tensile Strength | ASTM D 412 | Mpa | 14.1 |
| Elongation | ASTM D 412 | % | 330 |
| Specific Gravity | ASTM D 297 | g/cm ³ | 1.28 ±0.03 |
| Compression Set 22h / 200°C | ASTM D 395 B | % | 11 |
| Low Temperature Resistance / Non-brittle after 3 mins at -40°C | ASTM D 2137 - TR10 | °C | Pass |

| Aging Property | Test Method | Time (h) | Temperature (°C) | Hardness | Tensile Strength (%) | Ultimate Elongation (%) | Volume (%) |
|----------------|-------------|----------|------------------|----------|----------------------|-------------------------|------------|
| Air | ASTM D 573 | 70 | 100 | 3 | 1 | 7 | - |
| ASTM Oil 901 | ASTM D 471 | 70 | 100 | 4 | -5 | -4 | -5 |
| ASTM Oil 903 | ASTM D 471 | 70 | 100 | -3 | -12 | -11 | 8 |
| Fuel A | ASTM D 471 | 70 | 23 | -2 | -13 | -6 | 2 |
| Fuel B | ASTM D 471 | 70 | 23 | -11 | -31 | -21 | -21 |

Chemical resistance

- Many hydrocarbons
- Fats
- Oils & Gasoline
- Petroleum based hydraulic fluid (HFD-R)

Not compatible with:

- Ozone
- Esters
- Retones
- Aldehydes
- Chlorinated
- Nitro Hydrocarbons

| RS Article Number | Millimetres (mm) | | | | Inches (") | | | | Nominal (Inch dimensions) | | Standard Reference |
|-------------------|-------------------|----------------|---------------|----------------|-------------------|----------------|---------------|----------------|---------------------------|---------------|--------------------|
| | Internal Diameter | ID ± Tolerance | Cross Section | CS ± Tolerance | Internal Diameter | ID ± Tolerance | Cross Section | CS ± Tolerance | Internal Diameter | Cross Section | |
| 1964728 | 0.74 | 0.12 | 1.02 | 0.08 | 0.029 | 0.005 | 0.04 | 0.003 | 1/32 | 1/32 | AS568:1 |
| 1964732 | 1.07 | 0.12 | 1.27 | 0.08 | 0.042 | 0.005 | 0.05 | 0.003 | 3/64 | 3/64 | AS568:2 |
| 1964733 | 1.42 | 0.12 | 1.52 | 0.08 | 0.056 | 0.005 | 0.06 | 0.003 | 1/16 | 1/16 | AS568:3 |
| 1964734 | 1.78 | 0.13 | 1.78 | 0.08 | 0.07 | 0.005 | 0.07 | 0.003 | 5/64 | 1/16 | AS568:4 |
| 1964735 | 2.57 | 0.13 | 1.78 | 0.08 | 0.101 | 0.005 | 0.07 | 0.003 | 3/32 | 1/16 | AS568:5 |
| 1964736 | 10.82 | 0.2 | 1.78 | 0.08 | 0.426 | 0.008 | 0.07 | 0.003 | 7/16 | 1/16 | AS568:13 |
| 1964737 | 12.42 | 0.21 | 1.78 | 0.08 | 0.489 | 0.008 | 0.07 | 0.003 | 0.5 | 1/16 | AS568:14 |
| 1964738 | 14 | 0.22 | 1.78 | 0.08 | 0.551 | 0.009 | 0.07 | 0.003 | 9/16 | 1/16 | AS568:15 |
| 1964739 | 15.6 | 0.23 | 1.78 | 0.08 | 0.614 | 0.009 | 0.07 | 0.003 | 5/8 | 1/16 | AS568:16 |
| 1964740 | 17.17 | 0.24 | 1.78 | 0.08 | 0.676 | 0.009 | 0.07 | 0.003 | 11/16 | 1/16 | AS568:17 |
| 1964741 | 18.77 | 0.26 | 1.78 | 0.08 | 0.739 | 0.01 | 0.07 | 0.003 | 3/4 | 1/16 | AS568:18 |
| 1964742 | 20.35 | 0.27 | 1.78 | 0.08 | 0.801 | 0.011 | 0.07 | 0.003 | 13/16 | 1/16 | AS568:19 |
| 1964743 | 21.95 | 0.28 | 1.78 | 0.08 | 0.864 | 0.011 | 0.07 | 0.003 | 7/8 | 1/16 | AS568:20 |
| 1964744 | 23.52 | 0.29 | 1.78 | 0.08 | 0.926 | 0.011 | 0.07 | 0.003 | 15/16 | 1/16 | AS568:21 |
| 1964745 | 26.7 | 0.31 | 1.78 | 0.08 | 1.051 | 0.012 | 0.07 | 0.003 | 1 1/16 | 1/16 | AS568:23 |
| 1964746 | 29.87 | 0.34 | 1.78 | 0.08 | 1.176 | 0.013 | 0.07 | 0.003 | 1 3/16 | 1/16 | AS568:25 |
| 1964748 | 31.47 | 0.35 | 1.78 | 0.08 | 1.239 | 0.014 | 0.07 | 0.003 | 1 1/4 | 1/16 | AS568:26 |
| 1964749 | 33.05 | 0.36 | 1.78 | 0.08 | 1.301 | 0.014 | 0.07 | 0.003 | 1 5/16 | 1/16 | AS568:27 |
| 1964750 | 34.65 | 0.37 | 1.78 | 0.08 | 1.364 | 0.015 | 0.07 | 0.003 | 1 3/8 | 1/16 | AS568:28 |
| 1964751 | 37.82 | 0.39 | 1.78 | 0.08 | 1.489 | 0.015 | 0.07 | 0.003 | 1 1/2 | 1/16 | AS568:29 |
| 1964752 | 41 | 0.42 | 1.78 | 0.08 | 1.614 | 0.017 | 0.07 | 0.003 | 1 5/8 | 1/16 | AS568:30 |

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|---------|--------|------|------|------|-------|-------|-------|-------|---------|------|-----------|
| 1964754 | 44.17 | 0.44 | 1.78 | 0.08 | 1.739 | 0.017 | 0.07 | 0.003 | 1 3/4 | 1/16 | AS568:31 |
| 1964755 | 47.35 | 0.46 | 1.78 | 0.08 | 1.864 | 0.018 | 0.07 | 0.003 | 1 7/8 | 1/16 | AS568:32 |
| 1964756 | 50.52 | 0.48 | 1.78 | 0.08 | 1.989 | 0.019 | 0.07 | 0.003 | 2 | 1/16 | AS568:33 |
| 1964757 | 53.7 | 0.51 | 1.78 | 0.08 | 2.114 | 0.02 | 0.07 | 0.003 | 2 1/8 | 1/16 | AS568:34 |
| 1964758 | 56.87 | 0.53 | 1.78 | 0.08 | 2.239 | 0.021 | 0.07 | 0.003 | 2 1/4 | 1/16 | AS568:35 |
| 1964759 | 63.22 | 0.57 | 1.78 | 0.08 | 2.489 | 0.022 | 0.07 | 0.003 | 2 1/2 | 1/16 | AS568:37 |
| 1964760 | 66.4 | 0.59 | 1.78 | 0.08 | 2.614 | 0.023 | 0.07 | 0.003 | 2 5/8 | 1/16 | AS568:38 |
| 1964761 | 72.75 | 0.64 | 1.78 | 0.08 | 2.864 | 0.025 | 0.07 | 0.003 | 2 7/8 | 1/16 | AS568:40 |
| 1964762 | 82.27 | 0.7 | 1.78 | 0.08 | 3.239 | 0.028 | 0.07 | 0.003 | 3 1/4 | 1/16 | AS568:42 |
| 1964763 | 94.97 | 0.79 | 1.78 | 0.08 | 3.739 | 0.031 | 0.07 | 0.003 | 3 3/4 | 1/16 | AS568:44 |
| 1964764 | 107.67 | 0.88 | 1.78 | 0.08 | 4.239 | 0.035 | 0.07 | 0.003 | 4 1/4 | 1/16 | AS568:46 |
| 1964766 | 126.72 | 1.01 | 1.78 | 0.08 | 4.989 | 0.04 | 0.07 | 0.003 | 5 | 1/16 | AS568:49 |
| 1964767 | 1.24 | 0.12 | 2.62 | 0.09 | 0.049 | 0.005 | 0.103 | 0.004 | 1/16 | 3/32 | AS568:102 |
| 1964768 | 2.06 | 0.13 | 2.62 | 0.09 | 0.081 | 0.005 | 0.103 | 0.004 | 3/32 | 3/32 | AS568:103 |
| 1964769 | 2.84 | 0.13 | 2.62 | 0.09 | 0.112 | 0.005 | 0.103 | 0.004 | 1/8 | 3/32 | AS568:104 |
| 1964770 | 4.42 | 0.15 | 2.62 | 0.09 | 0.174 | 0.006 | 0.103 | 0.004 | 3/16 | 3/32 | AS568:106 |
| 1964771 | 5.23 | 0.15 | 2.62 | 0.09 | 0.206 | 0.006 | 0.103 | 0.004 | 7/32 | 3/32 | AS568:107 |
| 1964772 | 6.02 | 0.16 | 2.62 | 0.09 | 0.237 | 0.006 | 0.103 | 0.004 | 1/4 | 3/32 | AS568:108 |
| 1964773 | 20.3 | 0.27 | 2.62 | 0.09 | 0.799 | 0.011 | 0.103 | 0.004 | 13/16 | 3/32 | AS568:117 |
| 1964774 | 21.89 | 0.28 | 2.62 | 0.09 | 0.862 | 0.011 | 0.103 | 0.004 | 7/8 | 3/32 | AS568:118 |
| 1964776 | 23.47 | 0.29 | 2.62 | 0.09 | 0.924 | 0.011 | 0.103 | 0.004 | 15/16 | 3/32 | AS568:119 |
| 1964777 | 25.07 | 0.3 | 2.62 | 0.09 | 0.987 | 0.012 | 0.103 | 0.004 | 1 | 3/32 | AS568:120 |
| 1964778 | 26.64 | 0.31 | 2.62 | 0.09 | 1.049 | 0.012 | 0.103 | 0.004 | 1 1/16 | 3/32 | AS568:121 |
| 1964779 | 28.24 | 0.33 | 2.62 | 0.09 | 1.112 | 0.013 | 0.103 | 0.004 | 1 1/8 | 3/32 | AS568:122 |
| 1964780 | 31.42 | 0.35 | 2.62 | 0.09 | 1.237 | 0.014 | 0.103 | 0.004 | 1 1/4 | 3/32 | AS568:124 |
| 1964782 | 32.99 | 0.36 | 2.62 | 0.09 | 1.299 | 0.014 | 0.103 | 0.004 | 1 5/16 | 3/32 | AS568:125 |
| 1964783 | 34.59 | 0.37 | 2.62 | 0.09 | 1.362 | 0.015 | 0.103 | 0.004 | 1 3/8 | 3/32 | AS568:126 |
| 1964784 | 48.9 | 0.47 | 2.62 | 0.09 | 1.925 | 0.019 | 0.103 | 0.004 | 1 15/16 | 3/32 | AS568:135 |
| 1964785 | 61.6 | 0.56 | 2.62 | 0.09 | 2.425 | 0.022 | 0.103 | 0.004 | 2 7/16 | 3/32 | AS568:143 |
| 1964786 | 64.77 | 0.58 | 2.62 | 0.09 | 2.55 | 0.023 | 0.103 | 0.004 | 2 9/16 | 3/32 | AS568:145 |
| 1964787 | 72.69 | 0.64 | 2.62 | 0.09 | 2.862 | 0.025 | 0.103 | 0.004 | 2 7/8 | 3/32 | AS568:150 |
| 1964788 | 75.87 | 0.66 | 2.62 | 0.09 | 2.987 | 0.026 | 0.103 | 0.004 | 3 | 3/32 | AS568:151 |
| 1964789 | 94.92 | 0.79 | 2.62 | 0.09 | 3.737 | 0.031 | 0.103 | 0.004 | 3 3/4 | 3/32 | AS568:154 |
| 1964790 | 107.62 | 0.88 | 2.62 | 0.09 | 4.237 | 0.035 | 0.103 | 0.004 | 4 1/4 | 3/32 | AS568:156 |
| 1964791 | 113.97 | 0.92 | 2.62 | 0.09 | 4.487 | 0.036 | 0.103 | 0.004 | 4 1/2 | 3/32 | AS568:157 |
| 1964792 | 139.37 | 1.09 | 2.62 | 0.09 | 5.487 | 0.043 | 0.103 | 0.004 | 5 1/2 | 3/32 | AS568:161 |
| 1964793 | 7.52 | 0.17 | 3.53 | 0.1 | 0.296 | 0.007 | 0.139 | 0.004 | 5/16 | 1/8 | AS568:203 |
| 1964794 | 10.69 | 0.2 | 3.53 | 0.1 | 0.421 | 0.008 | 0.139 | 0.004 | 7/16 | 1/8 | AS568:205 |
| 1964795 | 12.29 | 0.21 | 3.53 | 0.1 | 0.484 | 0.008 | 0.139 | 0.004 | 1/2 | 1/8 | AS568:206 |
| 1964796 | 13.87 | 0.22 | 3.53 | 0.1 | 0.546 | 0.009 | 0.139 | 0.004 | 9/16 | 1/8 | AS568:207 |
| 1964798 | 17.04 | 0.24 | 3.53 | 0.1 | 0.671 | 0.009 | 0.139 | 0.004 | 11/16 | 1/8 | AS568:209 |

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|---------|--------|------|------|------|--------|-------|-------|-------|--------|------|-----------|
| 1964799 | 44.04 | 0.44 | 3.53 | 0.1 | 1.734 | 0.017 | 0.139 | 0.004 | 1 3/4 | 1/8 | AS568:224 |
| 1964801 | 47.22 | 0.46 | 3.53 | 0.1 | 1.859 | 0.018 | 0.139 | 0.004 | 1 7/8 | 1/8 | AS568:225 |
| 1964802 | 50.39 | 0.48 | 3.53 | 0.1 | 1.984 | 0.019 | 0.139 | 0.004 | 2 | 1/8 | AS568:226 |
| 1964803 | 53.57 | 0.51 | 3.53 | 0.1 | 2.109 | 0.02 | 0.139 | 0.004 | 2 1/8 | 1/8 | AS568:227 |
| 1964806 | 63.09 | 0.57 | 3.53 | 0.1 | 2.484 | 0.022 | 0.139 | 0.004 | 2 1/2 | 1/8 | AS568:230 |
| 1964807 | 66.27 | 0.59 | 3.53 | 0.1 | 2.609 | 0.023 | 0.139 | 0.004 | 2 5/8 | 1/8 | AS568:231 |
| 1964808 | 69.44 | 0.62 | 3.53 | 0.1 | 2.734 | 0.024 | 0.139 | 0.004 | 2 3/4 | 1/8 | AS568:232 |
| 1964809 | 75.79 | 0.66 | 3.53 | 0.1 | 2.984 | 0.026 | 0.139 | 0.004 | 3 | 1/8 | AS568:234 |
| 1964811 | 82.14 | 0.7 | 3.53 | 0.1 | 3.234 | 0.028 | 0.139 | 0.004 | 3 1/4 | 1/8 | AS568:236 |
| 1964812 | 85.32 | 0.72 | 3.53 | 0.1 | 3.359 | 0.028 | 0.139 | 0.004 | 3 3/8 | 1/8 | AS568:237 |
| 1964813 | 88.49 | 0.75 | 3.53 | 0.1 | 3.484 | 0.03 | 0.139 | 0.004 | 3 1/2 | 1/8 | AS568:238 |
| 1964814 | 91.67 | 0.77 | 3.53 | 0.1 | 3.609 | 0.03 | 0.139 | 0.004 | 3 5/8 | 1/8 | AS568:239 |
| 1964815 | 98.02 | 0.81 | 3.53 | 0.1 | 3.859 | 0.032 | 0.139 | 0.004 | 3 7/8 | 1/8 | AS568:241 |
| 1964816 | 104.37 | 0.85 | 3.53 | 0.1 | 4.109 | 0.033 | 0.139 | 0.004 | 4 1/8 | 1/8 | AS568:243 |
| 1964817 | 107.54 | 0.88 | 3.53 | 0.1 | 4.234 | 0.035 | 0.139 | 0.004 | 4 1/4 | 1/8 | AS568:244 |
| 1964818 | 117.07 | 0.94 | 3.53 | 0.1 | 4.609 | 0.037 | 0.139 | 0.004 | 4 5/8 | 1/8 | AS568:247 |
| 1964819 | 158.34 | 1.22 | 3.53 | 0.1 | 6.234 | 0.048 | 0.139 | 0.004 | 6 1/4 | 1/8 | AS568:259 |
| 1964820 | 202.79 | 1.51 | 3.53 | 0.1 | 7.984 | 0.059 | 0.139 | 0.004 | 8 | 1/8 | AS568:266 |
| 1964821 | 278.99 | 2 | 3.53 | 0.1 | 10.984 | 0.079 | 0.139 | 0.004 | 11 | 1/8 | AS568:276 |
| 1964822 | 291.69 | 2.09 | 3.53 | 0.1 | 11.484 | 0.082 | 0.139 | 0.004 | 11 1/2 | 1/8 | AS568:277 |
| 1964823 | 27.94 | 0.32 | 5.33 | 0.13 | 1.1 | 0.013 | 0.21 | 0.005 | 1 1/8 | 3/16 | AS568:320 |
| 1964824 | 85.09 | 0.72 | 5.33 | 0.13 | 3.35 | 0.028 | 0.21 | 0.005 | 3 3/8 | 3/16 | AS568:340 |
| 1964825 | 145.42 | 1.13 | 6.99 | 0.15 | 5.725 | 0.044 | 0.275 | 0.006 | 5 3/4 | 1/4 | AS568:435 |
| 1964826 | 183.52 | 1.38 | 6.99 | 0.15 | 7.225 | 0.054 | 0.275 | 0.006 | 7 1/4 | 1/4 | AS568:442 |
| 1964827 | 189.87 | 1.42 | 6.99 | 0.15 | 7.475 | 0.056 | 0.275 | 0.006 | 7 1/2 | 1/4 | AS568:443 |
| 1964828 | 253.37 | 1.84 | 6.99 | 0.15 | 9.975 | 0.072 | 0.275 | 0.006 | 10 | 1/4 | AS568:449 |
| 1964765 | 117.1 | 0.94 | 1.78 | 0.08 | 4.61 | 0.037 | 0.07 | 0.003 | | | |
| 1964729 | 1.78 | 0.13 | 1.02 | 0.08 | 0.07 | 0.005 | 0.04 | 0.003 | | | |
| 1964730 | 2.5 | 0.13 | 1.02 | 0.08 | 0.098 | 0.005 | 0.04 | 0.003 | | | |
| 1964800 | 44.45 | 0.44 | 3.53 | 0.1 | 1.75 | 0.017 | 0.139 | 0.004 | | | |
| 1964805 | 61.9 | 0.56 | 3.53 | 0.1 | 2.437 | 0.022 | 0.139 | 0.004 | | | |