



Seals

# N4180A80

General Purpose  
Nitrile

## TYPICAL PHYSICAL PROPERTIES

|                                         |                  |
|-----------------------------------------|------------------|
| HARDNESS, SHORE A                       | 82               |
| MODULUS @ 100% ELONGATION, psi          | 1228             |
| ULTIMATE TENSILE STRENGTH, psi          | 2153             |
| ULTIMATE ELONGATION, %                  | 231              |
| SPECIFIC GRAVITY                        | 1.32             |
| COMPRESSION SET 70 HOURS @ 212°F, %     | 24.4             |
| GLASS TRANSITION TEMPERATURE BY DSC, °F | -27              |
| TEMPERATURE RANGE                       | -40° F TO +250°F |

NOTE: THESE ARE TYPICAL VALUES AND SHOULD  
NOT BE USED AS SPECIFICATION LIMITS

## Compound N4180A80

### Test Results

| Media                  | Hardness<br>Change, Pnts. | 100% Modulus<br>Change, % | Ultimate Tensile<br>Change, % | Elongation<br>Change, % | Weight<br>Change, % | Volume<br>Change, % |
|------------------------|---------------------------|---------------------------|-------------------------------|-------------------------|---------------------|---------------------|
| <b>Original</b>        | 78                        | 1010 psi                  | 2086 psi                      | 241%                    | -                   | -                   |
| <b>Fuel A</b>          | 0                         | -4                        | -2                            | -1                      | +1                  | +1                  |
| Final Value            | 78                        | 971                       | 2046                          | 239                     |                     |                     |
| <b>Fuel B</b>          | -7                        | -7                        | -13                           | -15                     | +12                 | +21                 |
| Final Value            | 71                        | 935                       | 1822                          | 205                     |                     |                     |
| <b>Fuel C</b>          | -10                       | -16                       | -18                           | -23                     | +22                 | +36                 |
| Final Value            | 68                        | 851                       | 1701                          | 186                     |                     |                     |
| <b>Methanol</b>        | -4                        | -10                       | -7                            | +2                      | +4                  | +7                  |
| Final Value            | 74                        | 908                       | 1946                          | 247                     |                     |                     |
| <b>JA Jet Fuel</b>     | -2                        | -8                        | -6                            | -5                      | +3                  | +5                  |
| Final Value            | 76                        | 933                       | 1967                          | 228                     |                     |                     |
| <b>IRM #1 Oil</b>      | +2                        | +17                       | +22                           | -5                      | -2                  | -3                  |
| Final Value            | 80                        | 1186                      | 2552                          | 230                     |                     |                     |
| <b>IRM #3 Oil</b>      | -7                        | -7                        | 21                            | -8                      | +7                  | +10                 |
| Final Value            | 71                        | 940                       | 2514                          | 221                     |                     |                     |
| <b>MIL-H-5606</b>      | -5                        | -14                       | +12                           | -8                      | +6                  | +10                 |
| Final Value            | 73                        | 872                       | 2327                          | 221                     |                     |                     |
| <b>Jet Oil II</b>      | -13                       | -12                       | +10                           | -10                     | +20                 | +26                 |
| Final Value            | 65                        | 890                       | 2302                          | 217                     |                     |                     |
| <b>Stauffer 7700</b>   | -14                       | -16                       | +12                           | -2                      | +20                 | +27                 |
| Final Value            | 64                        | 844                       | 2337                          | 235                     |                     |                     |
| <b>Rando HD32</b>      | 0                         | +25                       | +16                           | -17                     | -1                  | -1                  |
| Final Value            | 78                        | 1259                      | 2428                          | 200                     |                     |                     |
| <b>Rapeseed Oil</b>    | -3                        | +5                        | +11                           | -8                      | +1                  | +2                  |
| Final Value            | 75                        | 1061                      | 2319                          | 222                     |                     |                     |
| <b>Ethylene Glycol</b> | 0                         | +7                        | +4                            | -9                      | -1                  | -1                  |
| Final Value            | 78                        | 1083                      | 2179                          | 219                     |                     |                     |
| <b>Distilled Water</b> | -2                        | +16                       | -2                            | -30                     | +2                  | +2                  |
| Final Value            | 76                        | 1170                      | 2040                          | 168                     |                     |                     |
| <b>Oven Air Age</b>    | +10                       | +67                       | +16                           | -31                     | -2                  | -2                  |
| Final Value            | 88                        | 1682                      | 2417                          | 166                     |                     |                     |

LL-1631

**70 Hrs @ Room Temperature**

**168 Hrs @ 100° C**

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