



**Compound Data Sheet**  
Parker O-Ring & Engineered Seals Division United States

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**MATERIAL REPORT**

Report Number: 119040  
4/28/2017

**Title:** Evaluation of Parker Compound

**Elastomer Type:** Polyacrylate (ACM) AA154-75

**Purpose:** To obtain typical test data

**Specification:** ASTM D2000 M2DH710 A26 B36 EO36 F14 Z1 Z2  
Z1 = 100% minimum elongation  
Z2 = 75  $\pm$  5 Durometer

**Color:** Black

**Recommended Temperature Range:** -5°F to 250°F

**Recommended For:** Mineral oil (engine, gear box, ATF oil), Ozone, weather, and aging resistance

**Not Recommended For:** Glycol based brake fluids (DOT 3 & DOT 4), aromatics and chlorinated hydrocarbons, hot water. Steam, acids, alkalis, and amines

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## REPORT DATA

| <u>Original Physical Properties</u>           | <u>Test Method</u> | <u>Spec Limits</u> | <u>Test Results</u> |
|-----------------------------------------------|--------------------|--------------------|---------------------|
| Hardness, Shore A. pts. (Z2)                  | ASTM D2240         | 75±5               | 79                  |
| Tensile Strength, MPa, min.                   | ASTM D412          | 10                 | 12                  |
| Ultimate Elongation, % (Z1)                   | ASTM D412          | 100                | 165                 |
| Modulus at 50% Elongation, MPa                | ASTM D412          | Report             | 4                   |
| Modulus at 100% Elongation, MPa               | ASTM D412          | Report             | 9                   |
| Specific Gravity, ±0.02                       | ASTM D297          | 1.35               | 1.34                |
| <b>Compression Set</b>                        |                    |                    |                     |
| <b><u>22 hrs. @ 150°C (Basic)</u></b>         | ASTM D395          |                    |                     |
| Percent of Original Deflection, Max           | Method B           | 60                 | 12                  |
| <b>Compression Set</b>                        |                    |                    |                     |
| <b><u>22 hrs. @ 150°C (B36)</u></b>           | ASTM D395          |                    |                     |
| Percent of Original Deflection, Max           | Method B           | 50                 | 27                  |
| <b>Dry Heat Resistance</b>                    |                    |                    |                     |
| <b><u>70 hrs. @ 150°C</u></b>                 | ASTM D865          |                    |                     |
| Hardness Change, pts.                         |                    | +10                | +6                  |
| Tensile Strength Change, %                    |                    | - 25               | +6                  |
| Elongation Change, %                          |                    | - 30               | - 2                 |
| <b>Fluid Immersion</b>                        |                    |                    |                     |
| <b><u>IRM 901, 70 hrs. @ 150°C (EO16)</u></b> | ASTM D471          |                    |                     |
| Hardness Change, pts.                         |                    | -5 to +10          | +7                  |
| Tensile Strength Change, %                    |                    | -20                | +15                 |
| Elongation Change, %                          |                    | -30                | +1                  |
| Volume Change, %                              |                    | ±5                 | -2                  |
| <b>Fluid Immersion</b>                        |                    |                    |                     |
| <b><u>IRM 903, 70 hrs @ 150°C (EO36)</u></b>  | ASTM D471          |                    |                     |
| Hardness Change, pts.                         |                    | -15                | -6                  |
| Tensile Strength Change, %                    |                    | -40                | +16                 |
| Elongation Change, %                          |                    | -40                | -4                  |
| Volume Change, %                              |                    | +25                | +9                  |
| <b>Low Temperature Brittleness (F14)</b>      |                    |                    |                     |
| <b><u>Nonbrittle after 3 min. @ -18°C</u></b> | ASTM D2137         |                    |                     |
|                                               |                    | Pass               | Pass                |