FKM 90 Compound 514530

ERIKS’ 514530 is a high performance grade FKM ter-polymer with excellent fluid and oil/fuel/solvent resistance. Specially designed for high pressure, down hole applications (EAD or RGD grade).

**Description**

**Chemical composition:** Ter-polymer of Tetrafluorethylene, vinylidenefluoride and hexafluoropropylene  
**Physical form:** O-rings  
**Colour:** Black  
**Temperature resistance:** -27°C to +230°C

**Application**

- Down hole  
- High pressure  
- Rapid gas decompression (RGD or EAD grade)

**Compliances**

- NORSOK M710  
- NACE TM0297  
- NACE TM0187  
- TOTAL GS EP PVV 142  
- Shell Research Ltd. Test Rig  
- ADI  
- REACH  
- RoHS

**Additional information**

- Excellent resistance to hydrocarbons and coolants

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**Table 1: Physical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Test standard</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>ASTM D2240</td>
<td>91</td>
<td>Shore A</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>ASTM D412</td>
<td>110</td>
<td>%</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>ASTM D412</td>
<td>16</td>
<td>MPa</td>
</tr>
<tr>
<td>100% Modulus</td>
<td>ASTM D412</td>
<td>16</td>
<td>MPa</td>
</tr>
<tr>
<td>Compression set – 70 hours at 200°C Slab</td>
<td>ASTM D395</td>
<td>15</td>
<td>%</td>
</tr>
<tr>
<td>Low temperature resistance TR10</td>
<td>ASTM D1329</td>
<td>-17</td>
<td>°C</td>
</tr>
</tbody>
</table>

**Table 2: Ageing properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Test standard</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
</table>
| Heat ageing – 168 hours at 250°C  
Hardness change  
Elongation at break change  
Tensile strength change | ASTM D573 | +3 | Shore A |
|                          |               | -15 | %    |
|                          |               | -15 | %    |
| Immersion in ASTM Fuel C – 70 hours at 23°C  
Hardness change  
Elongation at break change  
Tensile strength change  
Volume change | ASTM D471 | -3 | Shore A |
|                          |               | -10 | %    |
|                          |               | -20 | %    |
|                          |               | +4  | %    |

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