FF302-75
ULTRA FFKM for Semiconductor High End Deposition Applications

Extremely Low Etch & Metals:

Parker has developed FF302, a uniquely formulated perfluoroelastomer that provides the ideal solution for high end deposition applications where wafer yield is critical. Historically, non-filled technologies have offered very low metals content but erode rapidly in aggressive chemistries requiring frequent seal change. Metal oxide filled technologies offered improved etch resistance but higher risk of contamination due to that same metallic content. Parker Ultra™ FF302 answers that conundrum by offering excellent etch resistance in oxygen and fluorine plasmas while maintaining extremely low metals.

Features:

- Maximum operating temperature 600°F (315°C)
- Lowest extractables
- Extremely low metallic ion content
- Low particle generation
- Excellent oxygen and fluorine plasma resistance

Contact Information:

Parker Hannifin Corporation
O-Ring Division
2360 Palumbo Dr.
Lexington, KY 40509

phone 859 269 2351
fax 859 335 5128
ordmailbox@parker.com

www.parkerorings.com

ENGINEERING YOUR SUCCESS.
FF302-75 Material Data

Extremely Resistant:

FF302 provides robust sealing against CF₄, NF₃, O₂ and O₃ plasmas making it an excellent option for not only deposition but for etch processes as well. FF302 exhibits a much slower etch rate even compared to products that are developed for specifically etch resistance.

Purity:

In semiconductor processing it is critical that any generation of foreign material is mitigated. Seals have traditionally been a likely avenue for particles to be generated in the harsh environments of wafer processing. FF302 was developed to be cleaner than traditional, clean technologies.

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Properties, ASTM D2240, D1414</td>
<td></td>
</tr>
<tr>
<td>Shore A Hardness</td>
<td>75</td>
</tr>
<tr>
<td>Tensile Strength, psi</td>
<td>1198</td>
</tr>
<tr>
<td>Modulus at 100% Elongation</td>
<td>562</td>
</tr>
<tr>
<td>Ultimate Elongation, %</td>
<td>210</td>
</tr>
<tr>
<td>Compression Set, ASTM D395 Method B</td>
<td></td>
</tr>
<tr>
<td>70 hours @ 446° F (230° C), % of original deflection</td>
<td>19</td>
</tr>
</tbody>
</table>

WARNING:

FAILURE TO INSTRUCT PERSONS ON PROPER USE OF THESE PRODUCTS CAN RESULT IN EQUIPMENT FAILURE OR DAMAGE, PERSONAL INJURY OR DEATH. THE INFORMATION IN THIS DOCUMENT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE CONSIDERED AS FORMAL OR OFFICIAL DATA. THE USER MUST CONDUCT THEIR OWN TESTING TO CONFIRM THE SUITABILITY OF THE MATERIALS FOR THE USES SPECIFIED.

© 2016 Parker Hannifin Corporation