

## Material Profile: Superior® FC537 FFKM

Superior® FC537 is newly developed high-performance white perfluoroelastomer (FFKM) providing low compression set and temperature resistant. Specifically designed for long term life, high plasma resistance and low outgassing in with a maximum excursion temperature up to 260°C. Superior® FC537 is an excellent match for Deposition, Metallization, Dry Etch and Asher and Lamp Anneal along with excellent chemical compatibility in a wide range of industrial applications.

### Features and Benefits

- High Temperature Resistance
- Extremely Low Outgassing
- Outstanding Plasma Resistance
- Wide Chemical Resistance
- High Physical Properties
- Cost Effective

### Recommended Applications

- Deposition: CVD, APCVD HDPCVD  
LPCVD, PECVD, RPCVD, SACVD
- Lamp Anneal
- Metallization: PVD, Sputtering and Evaporation
- Dry Plasma Etch: Poly, Oxide and Metal
- Dry Plasma Etch: Poly, Oxide and Metal
- Dry Asher



**Superior® FC537 (FFKM)**

Note: Color variations and non-uniformities might be observed in Superior O-rings, which are mere cosmetic phenomenon and caused by inherent characters of polymer curing process. They are not foreign materials and not effect to the performance of the parts.

### Typical Physical Properties

Color	White
Hardness (Duro A, Peak) <sup>1*</sup>	72
Tensile Strength, psi (MPa) <sup>2*</sup>	2770 (19.1)
100% Modulus, psi (Mpa) <sup>2*</sup>	377 (2.6)
Elongation <sup>2*</sup>	254%
Specific Gravity <sup>3*</sup>	2.06
Compression Set: 70 hrs at 260 / 320°C <sup>4*</sup>	14% / 52%
1000 hrs at 260°C <sup>4*</sup>	49%
Service Temperature Range	0 to 320°C (32 to 608°F)



Not to be used for specification purposes.

<sup>1\*</sup> JIS K6253-3

<sup>2\*</sup> JIS K6251

<sup>3\*</sup> ASTM D297-13

<sup>4\*</sup> ASTM D395-03, B with AS568A-214, 260°C x 70h, 25% compression (considering CTE)

The information contained herein is believed to be reliable, but no representation, guarantees or warranties of any kind are made to its accuracy or suitability for any purpose. The information presented herein is based on laboratory testing and does not necessarily indicate end product performance. Full scale testing and end product performance are the responsibility of the user.

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