

UPW-01



Perfluoroelastomer (FFKM)

UniPol UPW-01 is a special white perfluoroelastomer that developed for all thermal processes with etching gases. The maximum service temperature is 320 °C and it can be used in both static and dynamic sealing applications because of its superior elastic recovery and mechanical strength properties in high temperature processes. **UPW-01** exhibits low outgassing and thermal expansion rate. Also, it has outstanding Plasma resistance for Cleaning gas (NF₃, O₂ etc.) and reactive gas. It is suited to use high-tem deposition, diffusion furnace and dry etching, etc. process.



Superior performance, cost effectiveness

- Offer total solutions of sealings
- Lower contamination
- Longer life span
- Safe & Easier installation

Features & Benefits

- ❖ Excellent plasma resistance
- ❖ Excellent compression set
- ❖ Outstanding thermal resistance
- ❖ Very low thermal expansion rate

Applications

- ❖ Show head seals
- ❖ Lid seals
- ❖ Slit valves
- ❖ Gas inlet seals
- ❖ Windows seals
- ❖ Heater seals
- ❖ Isolator valves

Recommend Process Application

- ❖ Diffusion, Furnace
- ❖ Dry etch plasma
- ❖ Metallization (PVD, CVD, sputtering, evaporation)
- ❖ Deposition (CVD, PECVD, HDPCVD)
- ❖ Remote plasma cleans
- ❖ Dry ashing

Typical Physical Properties

Color	White
Tensile Strength (Mpa) *ASTM D412(dumbbell specimens)	15.75
Elongation at Break (%) *ASTM D412(dumbbell specimens)	240
100% Modulus (Mpa)	8.2
Shore A Hardness, (+- 3) *ASTM D2240 (button sample)	75
Compression Set @ 70hr at 204°C (%)	14
@ 70hr at 300°C (%) *ASTM D1414 METHOD B (AS568A-214)	40
Max Temperature (°C)	320

NOTE : Minor black marks or variations in color may be observed on UPT FFKM part. These marks are inherent to the curing process and are not indicative of contamination or the presence of foreign material. They are considered normal characteristics of the product and are not expected to adversely affect the performance of the part in service.



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