

ASNA PERFREZ® XHT

For Semiconductor Deposition & Etch Applications

Technical Data Sheet (Jul 2019)

High Temperature Perfluoroelastomer for Plasma Applications

PERFREZ® XHT is the newest line of product portfolio products specially developed to handle extreme high temperature combined with aggressive oxygen and fluorine based plasma, while generating minimum particles. The essential aspects of combining high temperature is its ability to maintain the chemical compatibility along with those assets and minimize extrusion and stickiness and be as resilient a seal as possible throughout its operation.



Features and Benefits

- Superior physical properties with better Nitrile CTE values
- High temperature capabilities up to 300°C
- Excellent oxygen and fluorine compatibility
- Low metal content and manufactured with the best surface finishes and clean rooms per F51-0200 specifications.
- Should also be considered for sub-fab materials as the market faces new chemicals and higher temperatures in all heated lines

Compatible Semiconductor Process

- ✓ Deposition: PECVD, APCVD, HDPCVD, RPCVD, SACVD
- ✓ Plasma Etch: Oxide and Metal
- ✓ Ashing & Stripping (where temperatures are exceeded)
- ✓ Ion Implant
- ✓ RTP
- ✓ Diffusion

Typical Physical Properties¹

Color ²	Grey
Hardness, (Shore A)	76(+/-5)
Elongation at break ³ , %	191
Tensile Strength, psi(MPa)	1771 (12.21)
Modulus @100%, psi(MPa)	939 (6.47)
Coefficient of Thermal Expansion	3.09x10 ⁻⁴
Min. Operating Temperature, °C(°F)	-20(-4)
Max. Operating Temperature, °C(°F)	310(572)

¹Not to be used for specification purposes

²Color variations may be observed in actual product. They are considered to be cosmetic and inherent as a result of curing process, not indicative for foreign matter and is not expected to have an adverse effect on the performance of the part in service.

³Even though elongation property is indicated, most perfluoroelastomer materials should not be stretched for optimal performance.

⁴ASTM D395-03, Method B

Applications:

- ✓ Chamber Lid Seals
- ✓ End Point Windows
- ✓ Isolator Valve Seals
- ✓ Slit Valves
- ✓ Door Seals
- ✓ Gas Inlet Seals
- ✓ KF-Fittings
- ✓ Window Seals

Applied Seals NA, Inc.

39899 Balentine Dr, Suite 368, Newark, CA 94560, USA

Toll Free: (888)551-ASNA (2762) | Direct: (510)623-8307 | Fax: (510)623-8723

Email: info@asnaglobal.com

www.asnaglobal.com

