

# PERFREZ® XL12 (CZ78CK44) Product Data Sheet

## Semiconductor applications



Our range of PERFREZ® high performance materials for semiconductor processes meets the most challenging and demanding applications for aggressive chemicals, gas and high temperatures. These materials offer excellent chemical and thermal resistance, thermal stability and high purity under these extreme process conditions.

We provide our customers with the highest quality products and technical support on seal design, material recommendation, installation techniques and test analysis, specifically for the semiconductor market.

CZ78CK44 FFKM features superior physical properties with exceptionally low particle generation. It offers a low Coefficient of Thermal Expansion (CTE) that mitigates risk of extrusion, while offering outstanding plasma resistance and erosion, especially with aggressive fluorine based process.

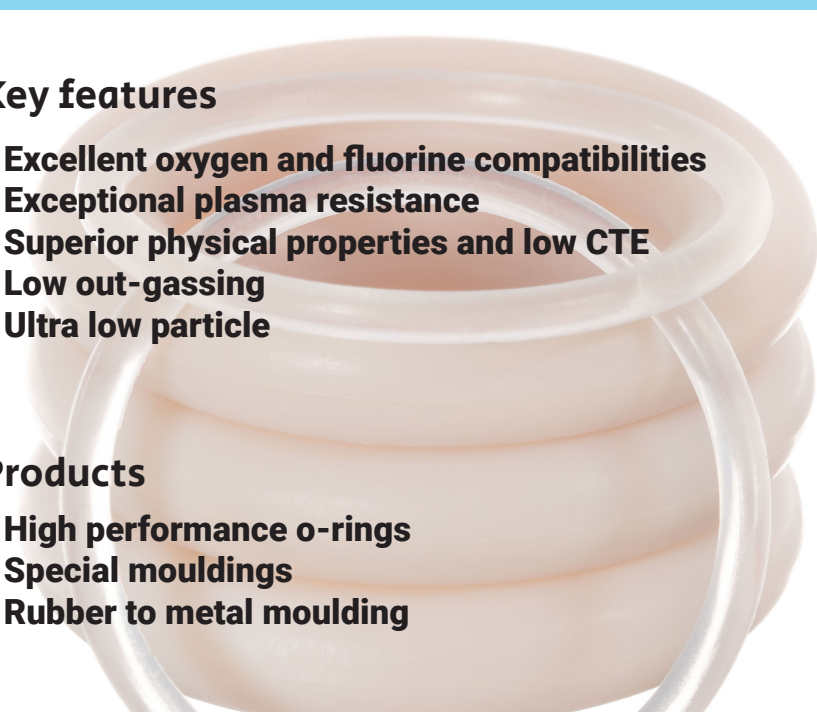
**Basic Polymer: Perfluoroelastomer**  
**Hardness: 78 +/- 5 Shore A**  
**Temperature range: -20°C to +260°C**  
**Colour: Beige**

### Key features

- Excellent oxygen and fluorine compatibilities
- Exceptional plasma resistance
- Superior physical properties and low CTE
- Low out-gassing
- Ultra low particle

### Products

- High performance o-rings
- Special mouldings
- Rubber to metal moulding



Property	Results
Hardness (Shore A)	78 (+/- 5)
Elongation at break, %	200
Tensile Strength, psi (MPa)	2474 (17.06)
Modulus @ 100%, psi (MPa)	985 (6.79)
Coefficient of Thermal Expansion	2.61x10 <sup>-4</sup>
Min. Operating Temperature, °C (°F)	-20 (-4)
Max. Operating Temperature, °C (°F)	260 (500)

### Applications

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

These results represent typical material properties and are not to be used for specification purposes. They are achieved under laboratory conditions and do not necessarily correspond to results measured on finished goods. It does not absolve the customer of the responsibility to make tests for their intended process or purpose. Ceetak Ltd makes no warranties and assumes no liability in connection with any use of this information.

