PERFREZ® 5033 (TFECK46) Product Data Sheet
Semiconductor applications

ceetak sealing solutions

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.

TFECK46 is a hybrid TFE material and used where an FKM cannot handle the process chemistries but a FFKM (perfluoroelastomer) is not necessary.

Basic Polymer: Perfluoroelastomer
Hardness: 80 +/- 5 Shore A
Temperature range: -25 °C to +230°C
Colour: Beige

Key features

- **Best in class of materials**
- **Nano-composition/special TFE filler**
- **Superior physical properties**
- **Higher temperature capabilities**
- **Low out-gassing**
- **Low particle generation**

Products

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

Property	Results
Hardness (Shore A)	80 (+/- 5)
Elongation at break, %	268
Tensile Strength, psi (MPa)	2263 (15.6)
Modulus @ 100%, psi (MPa)	943 (6.5)
Coefficent of Thermal Expansion	2.31×10^{-4}
Min. Operating Temperature, °C (°F)	-25 (-13)
Max. Operating Temperature, °C (°F)	230 (446)

Applications

- **Bell Jar Seals**
- **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.

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July 2021