



MARKEZ® Z2000 UHT PERFLUOROELASTOMER TECHNICAL DATASHEET

EXTREME HIGH TEMPERATURE BLACK PERFLUOROELASTOMER

Z2000 is the most thermally resilient FFKM compound currently available on the market. With a new patented catalyst technology, Markez Z2000 exhibits a combination of fantastic chemical resistance, extremely low compression set over time, and a best in class high heat resistance of 335 °C (635°F). Used as a cost-effective alternative to K7075 in countless applications across various industries like Semiconductor, Petro-Chem, Paint and Ink applications where resistance to harsh solvents is required. Available in O-rings and custom shapes. Our experienced application engineers welcome the opportunity to assist you in selecting the compound that provides the best value for your application.

FEATURES AND BENEFITS

- FDA Compliant
- Cost effective
- Nearly universal chemical compatibility
- Extremely low compression set
- Good dynamic properties - Long service life
- Compatible with amines < 100°F
- Does not melt at 350°C (under an air environment)
- Does not melt at 200°C (under Fluorine Gas exposure)

APPLICATION EXAMPLES

- Chemical sprayers, injectors and reactors
- Connectors, Controls & Filters
- Petro-Chem equipment, Sour gas
- Ink handling & spraying equipment
- Inorganic & Organic Acids & Alkine
- Ketones, Esters, Ethers, Aldehydes
- Solvents
 - Acetone, Heptane
 - Glycol ethers, Naphtha
 - Toluene, Turpentine
 - White spirit, Xylene
 - Methyl ethyl ketone (MEK)
 - Dimethylformamide (DMF)
- Lab Instrumentation
- Liquid chromatography equipment
- Mechanical seals
- Painting equipment
- Pumps & Valves
- Aerospace Fuels, Skydrol & Oils
- Semiconductor Applications
 - Dry etch
 - Strip
 - LPCVD
 - Litho/Track
 - ECP
 - Exhaust valves

TYPICAL PHYSICAL PROPERTIES

PROPERTIES	ASTM	TYPICAL VALUE
Color		Black
Material Type	FFKM	FFKM
Hardness, Shore A	D2240	76
Tensile Strength, MPa (psi)	D412	11.1 (1,610)
Elongation at Break, %	D412	138
Compression Set: 24 hrs. @ 200°C (392 °F)		11%
Compression Set: 72 hrs. @ 200°C (392 °F)		13%
Compression Set: 72 hrs. @ 300°C (572 °F)		25%
Min Operating Temp (lower spikes)		-15 °C (5°F)
Max Operating Temp (higher spikes)		335 °C (635°F)



This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.

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TESTING RESULTS OF MARKEZ® Z2000 UNDER VARIOUS CONDITIONS

BEST COMPRESSION SET OVER TIME

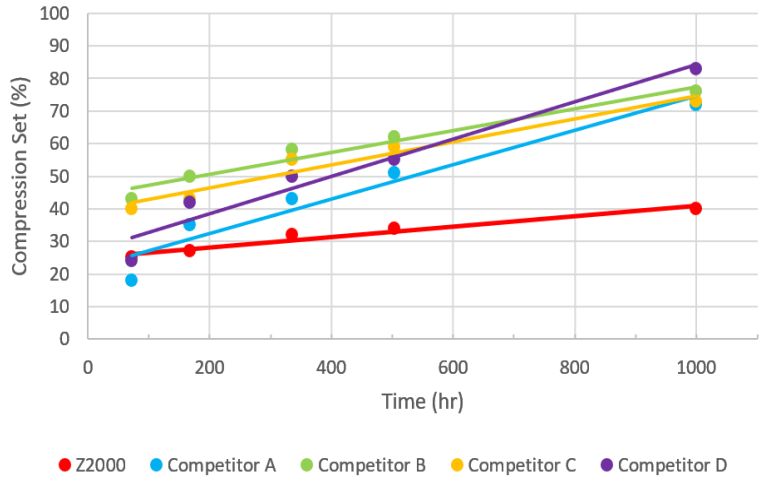
Z2000 is the most thermally resilient FFKM compound currently available on the market. With a new patented catalyst technology, Markez Z2000 compression dominates the competition.






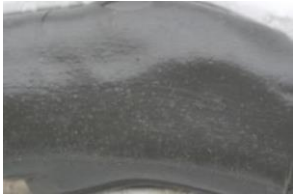


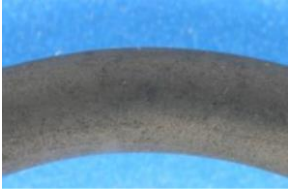



At 1008 hours at 300 °C, Z2000 shows less than half the compression set of the next best high temp material, K7075. Because of its first-rate compression set and thermal stability, Z2000 offers the best long term, high temperature sealing available.

BEST BEHAVIOR HIGH TEMP THERMAL EXPOSURE

When tested to 72 hrs at 350°C against a group of FFKM competitors, Z2000 was the only compound not to experience significant weight reduction or complete polymeric fusion. Z2000's performance speaks for itself. This data is a short-term evaluation test result. It is not recommended to use Z2000 at 350°C.

Z2000 Compression Set Over Time Comparison



	Before Heating	24 hrs @ 350°C	72 hrs @ 350°C
Z2000			
Wt Loss (%)	---	4	13
Competitor A			
Wt Loss (%)	---	6	Fusion
Competitor B			
Wt Loss (%)	---	14	35
Competitor C			
Wt Loss (%)	---	Fusion	Fusion

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