

Perfluoroelastomer Compound for General Purposes High Temperature applications

Technical information

Thermal Resistant FFKM

Typical Physical Properties	FT750B
Hardness ^a , Shore A	74
Color	Black
100 % Modulus ^b , MPa	6
Tensile Strength at Break ^b , MPa	14
Elongation at Break ^b , %	260
Compression Set (% , 70hr@200 °C) ^c	23
Max. Continuous Service Temp. ^d °C	330
Min. Service Temp. ^d °C	-30
Specific Gravity ^e , g/cc	1.995

Equivalent to Kalrez® 4079, Chemraz® 615/555

^a ASTM D2240 (pellet test specimen)

^b ASTM D412 & D1414 (dumbbell test specimen)

^c ASTM D395B (AS568 214 O-ring test specimen)

^d Fluorez® proprietary test method

^e ASTM D792 (AS568 214 O-ring test specimen)

Fluorez® FT750B is a general-purpose, high-temperature FFKM material that offers broad chemical compatibility. It is specifically designed for higher temperature applications in the chemical processing, petroleum, and semiconductor industries (for high-temperature processes).

Its fully fluorinated backbone structure provides superior chemical and thermal stability. FT750B also features a low compression set, which helps extend the service life under long-term thermal and chemical challenges.

Fluorez® technology provides FT750B FFKM in formulated compounds, o-rings, gaskets, and other customized formats per request.

Ultrapure post-cleaning and packaging processes are applied to all Fluorez® FT750B compounds and parts.

Suggested Applications:

Chemical and Petroleum industries:

- Variety of acid and alkine equipments
- Painting and ink injector or spraying head
- Thermal oil pumps
- Pump, Valve, mechanical seals, joints, connectors

Solvents

- Ketones, Esters, Ethers, Aldehydes
- Acetone, Heptane
- Glycol ethers, Naphtha
- Toluene, Turpentine
- White spirit, Xylene
- Methyl ethyl ketone (MEK)
- Dimethylformamide (DMF)

Aerospace

- Static sealing

Metal bounded parts

Additional Technical Information

 Coefficient of Thermal Expansion (°C⁻¹) :

 3.5X10⁻⁴

Chemical Compatibility

Chemical		Condition		FT750B Rating
		Temp (°C)	Time (hr)	
Acids	Glacial Acetic Acid	100	168	A
	Hydrochloric Acid (37%)	80	168	A
	Nitric Acid (65%)	85	168	B
	Sulfuric Acid (98%)	175	168	A
Amines	Ethylene Diamine	100	168	B
	Triethanolamine	40	168	A
Bases	Ammonia (30%)	100	168	A
	NaOH (50%)	100	168	A
Esters	Ethylacetate	23	168	A
	Methyl Tert-Butyl Ether (MTBE)	23	168	A
Gases	Ethylene Oxide	50	168	A
	Propylene Oxide	50	168	B
Hydrocarbons	Toluene	40	168	A
	Trichloroethylene	40	168	A
Ketones	Acetone	40	720	A
	Methyl Ethyl Ketone (MEK)	40	720	A
Steam (16 bar)		200	168	A

Rating: A = volume swelling (0-10%). B = volume swelling (10-20%). C = volume change (>20%)

Thermal Challenge Test

Compression set, % (ASTM D395)	ASTM Requirement	Typical Value
70hr@200 °C	40	23
70hr@230 °C	40	28
336hr@230 °C	55	40

Low Temperature Test

	ASTM	Value
TR-10 °C	D1329	-4
Brittle point °C	D746	-30