Kalon®

MATERIAL SELECTION GUIDE

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PRODUCTS

INDUSTRY APPLICATION

Katon®1000 Series FKM

Material Overview:

The Katon®1000 Series FKM is a high-performance FKM material with 66% fluorine base polymer, comparable to Viton™-A. Its two major characteristics are exceptional resistance to chemical agents and a competitive price. Katon®1000 Series FKM has excellent resistance to high temperature, ozone, weather, oxygen, mineral oil, fuels, hydraulic fluids, aromatics and many organic solvents and chemicals.

FDA APPROVED

Features and Benefits:

1. **Exceptional Chemical Resistance:** Resistant to most oils, solvents, and mild acids, alkalis / chemicals
2. **Fluorine content:** A widely used fluororubber with 66% fluorine content.
3. **Excellent Durability:** Designed for wear resistance, excellent compression set performance
4. **Wide Application Range:** Suitable for diverse industrial applications requiring reliable sealing solutions.
5. **Multiple Options:** Multiple formulas available according to needs
6. **FDA Approved:** Applicable for food processing applications.

Recommended Applications:

- Handling of acids, halogenated hydrocarbons, and chemical gases/liquids.
- Use with diester lubricants, petroleum fuels, and silicone oils/greases.
- Sealing for chemical pipelines involving hydrogen fluoride, acetic acid, ammonia, steam, and sulfuric acid.
- Applications in the food and beverage industry where contamination prevention is critical.
- General-purpose industrial applications with a need for chemical-resistant seals.
- Environments requiring superior impermeability, wear resistance, and aging durability.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or esters (e. g., ethyl acetate).
- Environments involving Skydrol®, automotive or aircraft brake fluids.
- Applications requiring resistance to strong acids, steam, or hot water without specialized grades.
- Systems exposed to ammonia, low-molecular-weight esters, or ethers.

Katon®1000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 1070B	FKM-Type 1	Bisphenol	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1075B	FKM-Type 1	Bisphenol	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1080B	FKM-Type 1	Bisphenol	80	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1090B	FKM-Type 1	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1070R	FKM-Type 1	Bisphenol	70	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1075R	FKM-Type 1	Bisphenol	75	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1080R	FKM-Type 1	Bisphenol	80	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon®1070W	FKM-Type 1	Bisphenol	70	OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon®1075W	FKM-Type 1	Bisphenol	75	OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1070G	FKM-Type 1	Bisphenol	70	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1075G	FKM-Type 1	Bisphenol	75	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓
Katon® 1080G	FKM-Type 1	Bisphenol	80	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66	✓					✓	✓		✓		✓		✓

Katon®2000 Series FKM

Material Overview:

The Katon®2000 Series FKM is a high-performance Peroxide-cured FKM material made with a base polymer containing 68-70% fluorine. Comparable to Viton™-B、Viton™-F, It offers exceptional resistance to chemicals, oils, and most solvents (excluding ketones and esters), along with superior solvent resistance compared to similar materials. Its durability and moderate cost make it an excellent choice for demanding applications.

Features and Benefits:

1. **Exceptional Chemical Resistance:** Resistant to most oils, solvents, and moderate acids, alkalis / chemicals
2. **Fluorine content:** A widely used fluororubber with 68-70% fluorine content.
3. **Excellent Durability:** Designed for wear resistance, excellent compression set performance
4. **Wide Application Range:** Suitable for diverse industrial applications requiring reliable sealing solutions.
5. **Multiple Options:** Multiple formulas available according to needs

Recommended Applications:

- Handling of moderate acids, halogenated hydrocarbons, and chemical gases/liquid.
- Use with diester lubricants, petroleum fuels, and silicone oils/greases.
- Sealing for chemical pipelines involving hydrogen fluoride, acetic acid, ammonia, steam, and sulfuric acid.
- General-purpose industrial applications with a need for chemical-resistant seals.
- Environments requiring superior impermeability, wear resistance, and aging durability.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or esters (e. g., ethyl acetate).
- Environments involving Skydrol®, automotive or aircraft brake fluids.
- Applications requiring resistance to strong acids, steam, or hot water without specialized grades.
- Systems exposed to ammonia, low-molecular-weight esters, or ethers.

Katon®2000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 2070B	FKM-Type 2	Peroxide	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓		✓		✓		✓
Katon® 2075B	FKM-Type 2	Peroxide	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓		✓		✓		✓
Katon® 2080B	FKM-Type 2	Peroxide	80	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓		✓		✓		✓
Katon® 2090B	FKM-Type 2	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓		✓		✓		✓
Katon® 2070W	FKM-Type 2	Peroxide	70	WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓		✓		✓		✓
Katon® 2075W	FKM-Type 2	Peroxide	70	WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓		✓		✓		✓
Katon® 2070C	FKM-Type 2	Peroxide	70	TRANSLUCENT OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓	✓	✓		✓		✓
Katon® 2075C	FKM-Type 2	Peroxide	75	TRANSLUCENT OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70	✓	✓				✓	✓	✓	✓		✓		✓

Katon®3000 Series Low Temperature FKM

Material Overview:

The Katon® 3000 Series represent the next generation of peroxide-curable FKM materials made with a base polymer containing 70% fluorine. Comparable to Viton™-GFLT, It Is designed for exceptional low-temperature performance with a TR10 value of -40°C. These O-rings combine flexibility in cold environments with high mechanical strength, chemical resistance, and reliable sealing properties.

Features and Benefits:

1. **Low-Temperature Performance:** Maintains flexibility and sealing integrity at temperatures as low as -40°C.
2. **Exceptional Chemical Resistance:** Withstands a wide range of oils, solvents, and chemicals.
3. **Enhanced Durability:** Provides up to 30X longer lifespan compared elastomers such as HNBR and VMQ.
4. **Reliable Sealing Properties:** Designed to deliver low permeability and resistance to wear in demanding applications.

Recommended Applications:

- Ultra-low temperature environments and refrigeration systems.
- Handling of acids, halogenated hydrocarbons, and chemical agents.
- Use with diester lubricants, petroleum fuels, and silicone oils/greases.
- Automotive fuel injection systems, biodiesel applications, and engine coolant seals.
- Industrial and chemical processing applications requiring durable and chemical-resistant seals.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or esters (e. g., ethyl acetate).
- Environments involving Skydrol®, automotive or aircraft brake fluids.
- Applications requiring resistance to strong acids, steam, or hot water without specialized grades.
- Systems exposed to ammonia, low-molecular-weight esters, or ethers.

Katon®3000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (±5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 3070B	FKM-Type 3	Peroxide	70	BLACK	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70	✓	✓				✓	✓		✓		✓	✓	✓
Katon® 3075B	FKM-Type 3	Peroxide	75	BLACK	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70	✓	✓				✓	✓		✓		✓	✓	✓
Katon® 3080B	FKM-Type 3	Peroxide	80	BLACK	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70	✓	✓				✓	✓		✓		✓	✓	✓
Katon® 3090B	FKM-Type 3	Peroxide	90	BLACK	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70	✓	✓				✓	✓		✓		✓	✓	✓
Katon® 3070W	FKM-Type 3	Peroxide	70	WHITE	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70	✓	✓				✓	✓		✓		✓	✓	✓
Katon® 3075W	FKM-Type 3	Peroxide	75	WHITE	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70	✓	✓				✓	✓		✓		✓	✓	✓

Katon®4000 Series AFLAS® (FEPM)

Material Overview:

The Katon® 4000 Series, made with AFLAS® (FEPM) as the base material, delivers exceptional chemical resistance and reliable performance in extreme environments. The material is designed to withstand steam, alkalis, amines, and various aggressive chemicals.

As a cost-effective alternative to FFKM, the Katon® 4000 Series provides outstanding performance for demanding applications.

Features and Benefits:

1. **Exceptional Chemical Resistance:** Withstands alkalis, steam, amines, solvents, and highly reactive chemicals.
2. **High-Temperature Stability:** Reliable performance in environments up to 204°C (400 ° F).
3. **Cost-Effective Alternative:** Cost effective compared to FFKM while retaining excellent chemical resistance.
4. **Durable and Reliable:** Designed for long-term sealing under extreme pressures and harsh conditions.

Recommended Applications:

- Ultra-low temperature environments and refrigeration systems.
- Handling of acids, halogenated hydrocarbons, and chemical agents.
- Use with diester lubricants, petroleum fuels, and silicone oils/greases.
- Automotive fuel injection systems, biodiesel applications, and engine coolant seals.
- Industrial and chemical processing applications requiring durable and chemical-resistant seals.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or esters (e. g., ethyl acetate).
- Aromatic Hydrocarbons and Chlorinated Solvents
- Environments involving Skydrol®, automotive or aircraft brake fluids.
- Applications requiring resistance to strong acids, or hot water without specialized grades.
- Systems exposed to ammonia, low-molecular-weight esters, or ethers.

Katon®4000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 4070C	FEPM-P	Peroxide	70	BEIGE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓
Katon® 4075C	FEPM-P	Peroxide	75	BEIGE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓
Katon® 4070B	FEPM-P	Peroxide	70	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 4075B	FEPM-P	Peroxide	75	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 4175B	FEPM-P	Peroxide	75	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 4080B	FEPM-P	Peroxide	80	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 4090B	FEPM-P	Peroxide	90	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 4070W	FEPM-P	Peroxide	70	WHITE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 4075W	FEPM-P	Peroxide	75	WHITE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓

Katon®5000 Series VITON-ETP

Material Overview:

The Katon® 5000 Series, made from FEPM-E - VITON™ ETP as the base material, provides a cost-effective and efficient alternative to FFKM in demanding chemical environments. These materials deliver excellent resistance to alkalis, amines, acids, and high temperatures, maintaining performance even in high-concentration and high-temperature chemical processes. Designed for reliability, the Katon® 5000 Series is ideal for applications requiring robust sealing and chemical durability at a significantly lower cost than FFKM materials.

Features and Benefits:

1. **Exceptional Chemical Resistance:** Withstands alkalis, amines, acids, and various solvents.
2. **Cost-Effective Alternative:** Cost effective compared to FFKM while retaining excellent chemical resistance.
3. **Thermal and Mechanical Reliability:** Exceptional performance under high temperatures and pressures.
4. **Versatile Application:** Suitable for a wide range of industrial and chemical processing environments, including high-saturation steam and aggressive chemical media.

Recommended Applications:

- High-temperature steam and chemical processing systems.
- General-purpose seals for acids, halogenated hydrocarbons, and diester lubricants.
- Automotive and aerospace fuel systems, including oxidized fuels like MEOH and MTBE.
- Hydraulic systems, engine lubricants, and transmission fluids.
- Oilfield exploration, etching processes, and steam boilers.
- Applications requiring superior permeability resistance and robust mechanical properties.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or esters (e. g., ethyl acetate).
- Environments involving Skydrol®, automotive or aircraft brake fluids.
- Systems exposed to ammonia, low-molecular-weight esters, or ethers.

Katon®5000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 5070B	FEPM-E	Peroxide	70	BLACK	-15℃~230℃ / 5℉~446℉	★★★☆☆	71	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 5080B	FEPM-E	Peroxide	80	BLACK	-15℃~230℃ / 5℉~446℉	★★★☆☆	71	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 5070W	FEPM-E	Peroxide	70	WHITE	-15℃~230℃ / 5℉~446℉	★★★☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓
Katon® 5075W	FEPM-E	Peroxide	75	WHITE	-15℃~230℃ / 5℉~446℉	★★★☆☆	57	✓	✓	✓		✓	✓	✓		✓		✓		✓

Katon®6000 Series TPF

Material Overview:

The Katon® 6000 Series is engineered based on TPF (thermoplastic fluoroelastomer). Comparable to ARMOR CRYSTAL®, It is specifically designed for applications requiring exceptional cleanliness, chemical resistance, and mechanical durability. This material provides low adhesion to metal surfaces, and enhanced resistance to plasma and radicals. The Katon® 6000 Series is tailored for demanding environments where purity and performance are paramount, ensuring reliable and long-lasting sealing solutions.

Features and Benefits:

1. **High Purity:** Low extractables and minimal particle generation.
2. **Exceptional Plasma Resistance:** Withstands plasma etching, CVD, PECVD, and other dry processes.
3. **Versatile Chemical Resistance:** Offers robust resistance to a wide range of chemicals.
4. **Mechanical Excellence:** Exhibits superior tear strength, low modulus elasticity, and outstanding wear resistance.

Recommended Applications:

- Semiconductor manufacturing processes, including plasma etching, UV curing, and high-ozone environments.
- Food processing equipment, ensuring compliance with strict hygiene standards.
- Vacuum seals for etching and deposition equipment in cleanrooms.
- Seals for piping joints, reaction chambers, and air exchange systems.
- Applications requiring low outgassing and minimal contamination risks.

Not Recommended Applications:

- Exposure to molten metals or gaseous alkali metals.
- Use with halogenated refrigerants or uranium hexafluoride.
- Environments involving MEK, acetone, ethyl acetate, or strong amines.
- Long-term exposure to hot water or steam without specialized grades.

Katon®6000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 6070C	FKM-TPF	Peroxide	70	TRANSLUCENT OFF-WHITE	-10℃~200℃ / 14℉~392℉	★★★☆☆	70	✓							✓	✓	✓	✓		✓
Katon® 6075C	FKM-TPF	Peroxide	75	TRANSLUCENT OFF-WHITE	-10℃~200℃ / 14℉~392℉	★★★☆☆	70	✓							✓	✓	✓	✓		✓

Katon®7100 Series FFKM

Material Overview:

The Katon® 7100 Series is a high-performance perfluoroelastomer (FFKM) material offering high chemical resistance and exceptional sealing capabilities across a wide range of aggressive media. With a temperature range of -10°C to 230°C, this versatile material is designed for demanding applications in industries such as semiconductor manufacturing, chemical processing, oil and gas, and food and pharmaceuticals. Its low compression set, outstanding thermal stability, and resistance to aggressive chemicals make it an ideal choice for critical applications.

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Features and Benefits:

1. **Chemical Resistance**: Withstand a wide variety of chemicals, including acids, alkalis, fuels, and solvents.
2. **Thermal Stability:** Reliable performance across a broad temperature range, withstanding extreme conditions.
3. **Long-Term Durability:** Maintains long-term sealing performance in challenging environments.
4. **Wide Application Range:** Suitable for diverse applications from oil exploration to semiconductor manufacturing.
5. **FDA Approved:** Applicable for food processing applications.

Recommended Applications:

- Semiconductor manufacturing processes, including plasma etching, UV curing, and high-ozone environments.
- Vacuum seals for etching and deposition equipment in cleanrooms.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Food and pharmaceutical industries requiring high-purity, durable sealing solutions.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

Katon®7100 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 7175B	FFKM	Peroxide	75	BLACK	-10℃~230℃ / -4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓
Katon® 7180B	FFKM	Peroxide	80	BLACK	-10℃~230℃ / -4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓
Katon® 7175W	FFKM	Peroxide	75	WHITE	-10℃~230℃ / -4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓
Katon® 7180W	FFKM	Peroxide	80	WHITE	-10℃~230℃ / -4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓
Katon® 7178W	FFKM	Peroxide	78	OFF-WHITE	-10℃~230℃ / -4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Katon® Compound	Similar Products			
Katon® 7175B	Kalrez® LS222 / CP222 / MS220	Chemraz® 505 / 541	Pororoca IOTA	FLUORITZ™ SB
Katon® 7175W	Kalrez® LS205	Chemraz® 513 / SD517 / SD585	Simriz® 486	
Katon® 7178W	Kalrez® 6380 / 8085 / 2037	Chemraz® 584 / 585		

Katon®7200 Series FFKM

Material Overview:

The Katon® 7200 Series is a perfluoroelastomer (FFKM) material engineered for applications demanding superior chemical resistance and high-temperature stability. With an extended temperature range of -10°C to 260°C, it provides exceptional performance in extreme environments. This material is ideal for sealing solutions across industries such as semiconductor manufacturing, chemical processing, oil and gas, and food and pharmaceuticals, offering reliability under the most aggressive conditions.

Features and Benefits:

1. **Chemical Resistance**: Withstand a wide variety of chemicals, including acids, alkalis, fuels, and solvents.
2. **Thermal Stability:** Reliable performance from -10°C to 260°C, withstanding extreme conditions.
3. **Long-Term Durability:** Maintains long-term sealing performance in challenging environments.
4. **Wide Application Range:** Suitable for diverse applications from oil exploration to semiconductor manufacturing.

Recommended Applications:

- Semiconductor manufacturing processes, including plasma etching, UV curing, and high-ozone environments.
- Vacuum seals for etching and deposition equipment in cleanrooms.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

Katon®7200 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 7275B	FFKM	Peroxide	75	BLACK	-10℃~260℃ / 14℉~500℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
Katon® 7275W	FFKM	Peroxide	75	WHITE	-10℃~260℃ / 14℉~500℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
Katon® 7275C	FFKM	Peroxide	73	TRANSLUCENT YELLOW	-10℃~260℃ / 14℉~500℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓

Katon® Compound	Similar Products					
Katon ® 7275B	Kalrez® 6230	Chemraz® 605	Perlast® G77X/G70A	Simriz® 481	Parafluor® V8920-75	FLUORITZ™ T20
Katon ® 7280W	Kalrez® 6221	Chemraz® E38	Perlast® G74S/G76W	Simriz® 486	Parafluor® V8930-75	
Katon ® 7275C	Chemraz® 629/639/570/571		Perlast® Y75N	Isolast® PureFab™ JPF22	Pororoca G80C	

Katon®7900 Series Extreme Chemical Environment FFKM

Material Overview:

The KATON® 7900 series is a premium-grade perfluoroelastomer (FFKM) material, offering exceptional chemical resistance, thermal stability, and sealing performance in high-purity and high-temperature environments.

It is well-suited for applications in industries such as oil & gas, petrochemicals, and semiconductor manufacturing, where resistance to aggressive media and extreme conditions is essential, with outstanding resistance to acids, alkalis (including strong bases), solvents, amines, alcohols, ketones, nitric acid, sulfuric acid, hydrochloric acid, chlorine, and high-purity water. It also maintains long-term sealing performance in high-purity process media, with excellent resistance to explosive decompression (RGD/ED).

Features and Benefits:

1. **Excellent Chemical Resistance:** Superior resistance to acids, alkalis, solvents, amines, and oxidizers, with consistent sealing performance.
2. **High Purity:** Low metal ion extraction, low particle generation, ideal for high-purity process applications.
3. **Wide Temperature Range:** Reliable performance from -10°C to 230°C.
4. **RGD/ED Resistance:** Meets industry requirements for resistance to rapid gas decompression.

Recommended Applications:

- Semiconductor manufacturing equipment (photolithography, etching, stripping, cleaning, CVD, ALD, and CMP processes).
- Oil & gas production equipment (offshore, subsea, drilling, and wellhead equipment, where applicable).
- Refining and chemical processing, including high-purity processes.
- Petrochemical process equipment: high-sour gas environments (H_2S, high CO_2).
- Where high-performance seals are required for resistance to strong oxidizers, amines, and mixed chemicals.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

Katon®7900 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 7975B	FFKM	Peroxide	78	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
Katon® 7975W	FFKM	Peroxide	75	WHITE	-10℃~230℃/-4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
Katon® 7990B	FFKM	Peroxide	93	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓

Katon® Compound	Similar Products		
Katon ® 7975B	ERIKS 92410A	FST 75 FFKM Z7257	Pororoca 875B
Katon ® 7990B	Kalrez® 0090 / OG193	Chemraz® 526	Perlast® G92E

Katon®8000 Series FFKM

Material Overview:

The Katon® 8000 Series is an advanced perfluoroelastomer (FFKM) engineered for demanding applications requiring wide operational range, superior chemical resistance, and excellent thermal stability. With a temperature range of -10°C to 290°C, this material ensures exceptional sealing performance in extreme conditions. Designed for various industries, including chemical processing, semiconductor manufacturing, food processing, pharmaceuticals, and petroleum exploration. offering reliability under high-temperature and chemical exposed conditions.

FDA APPROVED

Features and Benefits:

1. **Wide Temperature Resistance:** Long-term stability up to 290°C, with short-term resistance up to 317°C.
2. **Superior Chemical Compatibility:** Resistant to acids, alkalis, solvents, fuels, and aggressive industrial chemicals.
3. **Low outgassing:** Certain compounds feature low metal content for particle reduction
4. **Long-Term Durability:** ensures sustained sealing performance in challenging environments.
5. **FDA Approved:** Applicable for food processing applications.

Recommended Applications:

- Semiconductor manufacturing processes, including plasma etching, UV curing, and high-ozone environments.
- Vacuum seals for etching and deposition equipment in cleanrooms.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Food and pharmaceutical industries requiring high-purity, durable sealing solutions.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

Katon®8000 Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 8075B	FFKM	Peroxide	75	BLACK	-10℃~290℃ / 14℉~554℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Katon® 8075W	FFKM	Peroxide	75	WHITE	-10℃~290℃ / 14℉~554℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Katon® 8175C	FFKM	Peroxide	77	UMBER	-10℃~290℃ / 14℉~554℉	★★★★☆	72	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Katon® Compound	Similar Products			
Katon ® 8075B	Kalrez® 6375 / 7375 / 3065 / 1050LF		Perlast® G67P	FLUORITZ™ HS
Katon ® 8075W	Perlast® G75W		Pororoca 252W	
Katon ® 8175C	Kalrez® 9100	Chemraz® XRZ	Perlast G67P / G74P	Isolast® PureFab™ JPF30

Katon®9000 Series FFKM

Material Overview:

The Katon® 9000 Series is an advanced perfluoroelastomer (FFKM) engineered for ultra-high temperature applications, offering a broad operational range from -10°C to 317°C and short-term exposure up to 340°C. Katon® 9000 is the preferred material for manufacturing high-performance sealing components such as O-rings, gaskets, valve seals, diaphragms, stators, and bonded seals, ensuring reliability in harsh environments exposed to aggressive chemicals, extreme temperatures, and high-pressure conditions.

Features and Benefits:

1. **High Temperature Resistance :** Withstands temperatures up to 317°C (short-term exposure up to 340°C).
2. **Superior Chemical Resistance :** Withstand a wide variety of chemicals, including acids, alkalis, fuels, and solvents.
3. **Low Outgassing & High Purity :** Ideal for semiconductor manufacturing environments.
4. **Exceptional Plasma Resistance :** Provides durability in plasma-intensive processes.

Recommended Applications:

- Semiconductor manufacturing processes, including plasma etching, UV curing, and high-ozone environments.
- Vacuum seals for etching and deposition equipment in cleanrooms.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Food and pharmaceutical industries requiring high-purity, durable sealing solutions.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Hydrogen Sulfide (H_2S) Exposure – Use Katon® 7900 Series for H_2S-resistant applications.
- Applications requiring resistance to specific halogenated fluids without specialized grades.
- Uranium Hexafluoride (UF_6) Exposure

Katon®9000 Series Compounds

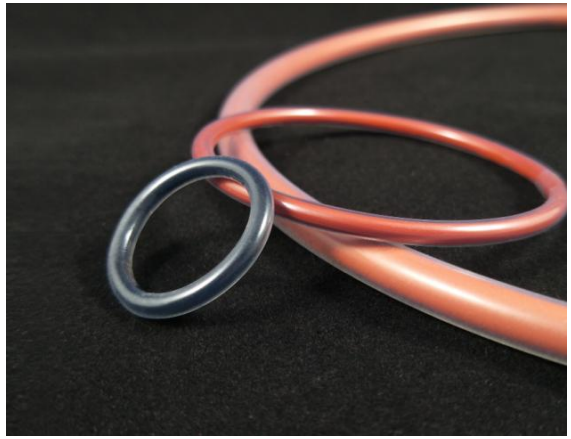
Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® 9075B	FFKM	Triazine	75	BLACK	-10℃~317℃ / 14℉~602℉	★★★★★	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Katon® 9080B	FFKM	Triazine	80	BLACK	-10℃~317℃ / 14℉~602℉	★★★★★	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Katon® 9075W	FFKM	Triazine	75	LIGHT CYAN	-10℃~317℃ / 14℉~602℉	★★★★★	72	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Katon® 9075C	FFKM	Triazine	72	DARK AMBER	-10℃~317℃ / 14℉~602℉	★★★★★	72	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Katon® Compound	Similar Products				
Katon ® 9075B / 9080B	Kalrez® 4079	Chemraz® 551 / 555 / 694	Perlast® G75B	Parafluor® V8545-75	Pororoca 251B
Katon ® 9075W	Perlast® G75W / G75H	Parafluor® V8562-75			
Katon ® 9075C	Kalrez® 9500 / 7275	Chemraz® XRZ	Isolast® PureFab™ JPF10		

Katon® PTFE Encapsulated O-ring Material

Material Overview:

Katon PTFE Encapsulated O-Ring compounds combine the elasticity of rubber with the superior chemical resistance and low-friction properties of PTFE (Polytetrafluoroethylene). The core is available in Fluoroelastomer (FKM) or silicone, providing excellent sealing capability and resilience. The outer layer is a seamless FEP or PFA encapsulation, ensuring outstanding chemical resistance and high-temperature performance. Its low coefficient of friction makes it particularly suitable for dynamic sealing applications, extending service life and reducing maintenance needs.



Features and Benefits:

1. **Superior Chemical Resistance:** Compatible with almost all chemical media, ensuring long-term durability
2. **Low Friction & Wear Resistance:** Reduces friction between moving parts, extending service
3. **High-Temperature & Pressure Resistance:** Performs well in extreme heat and high-pressure conditions
4. **Excellent Gas Sealing Properties:** Low permeability makes it ideal for gas and vacuum applications

Recommended Applications:

- Chemical Processing & Corrosive Fluids
- High-Temperature & High-Pressure Environments – Withstands extreme temperatures and pressures, suitable for steam systems, petrochemical industries, reactors, and high-pressure pumps.
- Dynamic Sealing Applications – The low-friction coefficient makes it suitable for automotive transmissions, hydraulic systems, robotic arms, and conveyor belts, reducing wear and improving efficiency.

Not Recommended Applications:

- Severe Mechanical Deformation Environments
- Extreme Pressure Fluctuation Environments
- Rough Sealing Surfaces

Katon®PTFE Encapsulated Series Compounds

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)	Mild acids and alkalis gases and liquids	Moderate acids and alkalis gases and liquids	Strong acids and alkalis gases and liquids	High-concentration organic solvents	Steam, hot water, and mineral acids	Fuels and gasoline additives	Hydraulic oil, synthetic engine oil, transmission oil, and brake	Low outgassing	Plasma discharge	Ozone gas	ETCH process	CVD process	Semiconductor pipeline process
Katon® ED95B	FFKM	Bisphenol	95	BLACK	-30℃~200℃/-22℉~428℉	★★★★★	-	✓	✓	✓	✓	✓	✓	✓		✓	✓			
Katon® ED95R	FFKM	Peroxide	95	RED	-62℃~260℃/-79℉~500℉	★★★★★	-	✓	✓	✓	✓	✓	✓	✓		✓	✓			

Katon®

INDUSTRY APPLICATION MATERIAL GUIDE

A concise guide for selecting O-ring materials based on industry applications, chemical resistance, and performance in various conditions.

www. maxmold. com

Semiconductor Manufacturing Equipment & Clean Rooms

Application Overview:

The Katon® compounds under this category are designed specifically for semiconductor manufacturing equipment and cleanrooms. These Katon® compounds for O-rings and seals are optimized for high-purity environments. Featuring zero metal fillers and minimal particle emission. meet the stringent requirements of the semiconductor industry, ensuring clean and efficient operations.

Features and Benefits:

- Engineered with zero metal fillers
- Superior chemical resistance
- Minimal particle generation
- Exceptional heat and chemical durability

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 2070C	FKM-Type 2	Peroxide	70	TRANSLUCENT OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2075C	FKM-Type 2	Peroxide	75	TRANSLUCENT OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 4070C	FEPM-P	Peroxide	70	BEIGE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4075C	FEPM-P	Peroxide	75	BEIGE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 6070C	FKM-TPF	Peroxide	70	TRANSLUCENT OFF-WHITE	-10℃~200℃ / 14℉~392℉	★★★☆☆	70
Katon® 6075C	FKM-TPF	Peroxide	75	TRANSLUCENT OFF-WHITE	-10℃~200℃ / 14℉~392℉	★★★☆☆	70
Katon® 7178W	FFKM	Peroxide	78	OFF-WHITE	-10℃~230℃ / -4℉~446℉	★★★★☆	72
Katon® 7275C	FFKM	Peroxide	73	TRANSLUCENT YELLOW	-10℃~260℃ / 14℉~500℉	★★★★☆	72
Katon® 8175C	FFKM	Peroxide	77	UMBER	-10℃~290℃ / 14℉~554℉	★★★★☆	72
Katon® 9075C	FFKM	Triazine	72	DARK AMBER	-10℃~317℃ / 14℉~602℉	★★★★★	72

Recommended Applications:

- High-purity cleanrooms requiring minimal particle emission.
- Semiconductor manufacturing equipment such as vacuum etching tools.
- Environments with high chemical exposure and strict cleanliness requirements.
- Applications needing superior plasma resistance and low outgassing.

Not Recommended Applications:

- Exposure to molten metals or gaseous alkali metals.
- Environments involving halogenated refrigerants or fluids.
- Uranium hexafluoride processing.

Oil Exploration & High-Pressure Deep Wells

Application Overview:

Katon® Oil Exploration & High-Pressure Deep Well compounds are specifically designed for the harsh conditions encountered in oil exploration and high-pressure deep well environments. These seals deliver exceptional chemical resistance, durability, and elasticity, making certain compounds ideal for applications exposed to heavy hydrocarbons, H_2S, CO_2, and high-pressure gases. These Katon® materials perform reliably across extreme temperatures, from below -20°C to over 230°C.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 4175B	FEPM-P	Peroxide	75	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4090B	FEPM-P	Peroxide	90	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 7975B	FFKM	Peroxide	78	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72
Katon® 7990B	FFKM	Peroxide	93	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72

Features and Benefits:

- Resists heavy hydrocarbons, high-temperature steam
- Superior chemical resistance
- Resists corrosive gases like H_2S and CO_2
- Wide Temperature and Pressure Tolerance

Recommended Applications:

- High-temperature and high-pressure oil drilling and production systems.
- Long-term exposure to high-pressure gases in downhole applications.
- Environments with H_2S, acidic gases, and methanol-based fuels.
- Use with transmission fluids (ATF) and amine-containing liquids.

Not Recommended Applications:

- Environments with chlorinated hydrocarbons.
- Exposure to ketones or organic refrigerants.
- Use with aromatic fuels.
- Applications involving carbon tetrachloride.

High Saturation Steam & Alkali Resistance

Application Overview:

The High Saturation Steam & Alkali Resistance application category is tailored for industries requiring reliable sealing solutions in environments with high-temperature steam and alkali-rich conditions. Using advanced base materials such as Aflas®, these solutions provide superior resistance to aggressive chemicals, ensuring durability and performance in demanding environments like automotive, industrial, and petrochemical applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 4070C	FEPM-P	Peroxide	70	BEIGE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4075C	FEPM-P	Peroxide	75	BEIGE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4070B	FEPM-P	Peroxide	70	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4075B	FEPM-P	Peroxide	75	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4080B	FEPM-P	Peroxide	80	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4090B	FEPM-P	Peroxide	90	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4070W	FEPM-P	Peroxide	70	WHITE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4075W	FEPM-P	Peroxide	75	WHITE	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57

Features and Benefits:

- Superior resistance to high-saturation steam
- Corrosive alkali substances resistance
- Long-lasting performance under extreme temperatures and pressures
- Excellent mechanical properties and elasticity

Recommended Applications:

- Automotive applications requiring ATF compatibility.
- High-temperature steam systems such as heat exchangers and steam boilers.
- Industrial processes with exposure to etching chemicals and alkali-rich solutions.
- Petroleum exploration and production environments.

Not Recommended Applications:

- Use with chlorinated hydrocarbons.
- Exposure to ketones or organic refrigerants.
- Applications involving aromatic fuels.
- Environments with carbon tetrachloride exposure.

Engine & Transmission Components

Application Overview:

The Engine & Transmission Components application category focuses on providing robust sealing solutions designed to withstand the demanding conditions of automotive engines and transmissions. Utilizing Aflas® based materials, these seals exhibit exceptional resistance to corrosive oils, high temperatures, and aggressive chemicals, ensuring durability and performance in critical automotive applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 4070B	FEPM-P	Peroxide	70	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4075B	FEPM-P	Peroxide	75	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4080B	FEPM-P	Peroxide	80	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57

Features and Benefits:

- Resistance to corrosive oils, lubricants, and hydraulic fluids
- Superior mechanical properties and compression set resistance
- Reliable performance in high-pressure dynamic applications
- Superior chemical resistance

Recommended Applications:

- Pistons and injection engines (e. g., gasoline and jet fuel engines).
- High-temperature transmission fluids and lubricants.
- Hydraulic systems using phosphate ester fluids.
- High-pressure dynamic applications and petroleum-based lubricants.

Not Recommended Applications:

- Use with chlorinated hydrocarbons.
- Exposure to ketones or organic refrigerants.
- Applications involving aromatic fuels.
- Environments with carbon tetrachloride exposure.

Industrial High Pressure

Application Overview:

The Industrial High Pressure application category is tailored for environments requiring reliable and robust sealing solutions under extreme pressures and temperatures. These seals offer exceptional resistance to high-pressure steam, aggressive chemicals, and mechanical stress, ensuring long-lasting performance in demanding industrial applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 1090B	FKM-Type 1	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 2090B	FKM-Type 2	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 4090B	FEPM-P	Peroxide	90	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 7990B	FFKM	Peroxide	93	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72

Features and Benefits:

- Resistance to high-pressure and high-temperature steam
- Resistance to aging, ozone, and a wide range of chemicals
- Superior mechanical strength and durability

Recommended Applications:

- High-pressure hydraulic systems and industrial machinery.
- High-pressure applications in oil and gas exploration and production.
- Liquid petroleum gas (LPG) and other compressed gas systems.
- Industrial compressors, pumps, and valves operating under extreme pressure.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or organic refrigerants.
- Aromatic fuels and chlorinated hydrocarbons.
- Environments with carbon tetrachloride exposure.
- Applications involving steam, hot water, or polar.

Electrical Applications

Application Overview:

The Electrical Applications category provides advanced O-ring and gaskets material solutions for energy transmission, storage, and renewable energy systems. Designed for the demanding conditions of electrical systems, these O-rings offer exceptional resistance to ionized water, chemicals, ozone, and environmental factors. Perfect for use in renewable energy applications, including wind turbines, energy storage systems, and green gas technologies.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 2070B	FKM-Type 2	Peroxide	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2075B	FKM-Type 2	Peroxide	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2070W	FKM-Type 2	Peroxide	70	WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2075W	FKM-Type 2	Peroxide	70	WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 4070B	FEPM-P	Peroxide	70	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4075B	FEPM-P	Peroxide	75	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57
Katon® 4080B	FEPM-P	Peroxide	80	BLACK	-15℃~230℃ / 5℉~446℉	★★☆☆☆	57

Features and Benefits:

- Exceptional resistance to chemicals
- Superior ozone and weather
- Engineered for advanced energy systems

Recommended Applications:

- Energy storage systems, including redox flow and lithium-ion battery seals.
- Renewable energy systems like wind turbines and solar panel enclosures.
- Electrical components exposed to ionized water, ozone, and weathering.
- High-performance sealing for advanced electrical systems in harsh environments.

Not Recommended Applications:

- Use with chlorinated hydrocarbons, ketones (e. g., MEK), or organic refrigerants.
- Applications involving aromatic fuels or carbon tetrachloride.
- Exposure to steam, hot water, ammonia, or amine-based chemicals.
- Low-molecular-weight organic acids (e. g., formic acid, acetic acid)

Maritime Industry

Application Overview:

The Maritime Industry application category focuses on advanced O-ring and gaskets material solutions designed to withstand the extreme conditions of marine environments. These seals provide exceptional resistance to low temperatures, corrosive chemicals, and mechanical stresses, ensuring long-term performance and reliability in critical maritime applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 3070B	FKM-Type 3	Peroxide	70	BLACK	-40°C~230°C / -40°F~446°F	★★☆☆☆	70
Katon® 3075B	FKM-Type 3	Peroxide	75	BLACK	-40°C~230°C / -40°F~446°F	★★☆☆☆	70
Katon® 3070W	FKM-Type 3	Peroxide	70	WHITE	-40°C~230°C / -40°F~446°F	★★☆☆☆	70
Katon® 3075W	FKM-Type 3	Peroxide	75	WHITE	-40°C~230°C / -40°F~446°F	★★☆☆☆	70

Features and Benefits:

- High durability in extreme marine conditions
- Engineered for extremely low temperature environments
- Customizable sealing solutions for unique maritime requirements

Recommended Applications:

- Marine engines, including pistons and jet fuel systems.
- Lubrication systems with high compression resistance.
- High-temperature and high-pressure applications involving transmission fluids.
- Low-temperature environments and dynamic marine applications.

Not Recommended Applications:

- Exposure to chlorinated hydrocarbons.
- Use with ketones or organic refrigerants.
- Applications involving aromatic fuels or carbon tetrachloride.
- Environments requiring resistance to strong polar solvents.

Refrigerants & Ultra-Low Temperature Systems

Application Overview:

The Refrigerants & Ultra-Low Temperature Systems application category focuses on advanced solutions designed for extreme low-temperature environments. These seals, made from peroxide-cured fluorinated rubber, provide excellent elasticity, chemical resistance, and temperature stability, making them ideal for refrigeration, cryogenic systems, and industrial machinery.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 1075B	FKM-Type 1	Bisphenol	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075R	FKM-Type 1	Bisphenol	75	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075G	FKM-Type 1	Bisphenol	75	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 3070W	FKM-Type 3	Peroxide	70	WHITE	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70
Katon® 3075W	FKM-Type 3	Peroxide	75	WHITE	-40℃~230℃ / -40℉~446℉	★★☆☆☆	70

Features and Benefits:

- Withstand ultra-low temperatures as low as -40°C
- Superior chemical resistance to refrigerants, fuels, oils, and a wide range of industrial chemicals
- Outstanding aging and ozone resistance

Recommended Applications:

- Ultra-low temperature environments (up to -40°C).
- Refrigeration systems and cryogenic applications.
- Industrial low-temperature machinery and fluid dynamics equipment.
- Applications requiring resistance to acids, fuels, oils, and non-flammable hydraulic fluids

Not Recommended Applications:

- Exposure to chlorinated hydrocarbons.
- Use with ketones or organic refrigerants.
- Applications involving aromatic fuels or carbon tetrachloride.
- Environments requiring resistance to specific polar solvents

Common-Grade Chemicals

Application Overview:

This category offers cost-effective O-rings and gaskets with exceptional resistance to common chemicals. With a fluorine content of 68-70%, these seals are designed for moderate industrial and chemical applications. They provide superior durability, low compression set, and compatibility with a wide range of oils and solvents, making them ideal for applications that demand reliability at an affordable cost.

Features and Benefits:

- Resistance against acids, oils, and industrial solvents
- Versatile Design: for chemical pipelines, gas systems
- Cost-Effective solution for replacing premium fluorinated elastomers

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 2070B	FKM-Type 2	Peroxide	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2075B	FKM-Type 2	Peroxide	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2080B	FKM-Type 2	Peroxide	80	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2090B	FKM-Type 2	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2070W	FKM-Type 2	Peroxide	70	WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2075W	FKM-Type 2	Peroxide	70	WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2070C	FKM-Type 2	Peroxide	70	TRANSLUCENT OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 2075C	FKM-Type 2	Peroxide	75	TRANSLUCENT OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70

Recommended Applications:

- Various Temperature Systems: Performs reliably in fluctuating temperature environments.
- Acid Resistance: Perfect for applications exposed to acidic substances in chemical processing.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or organic acids (e. g., formic acid, acetic acid).
- Steam or Brake Fluids: Unsuitable for high-temperature steam or specialty fluids.
- Contact with strong alkalis, ammonia, or amines.
- Use in systems with Skydrol® or specialty hydraulic fluids.

Intermediate Chemical Applications

Application Overview:

Katon® combines VITON™ ETP materials, offering excellent chemical resistance and high-temperature performance compared to other materials. It provides better chemical resistance in the mid-range, excellent resistance to high temperatures, and outstanding performance in harsh environments. It is widely used in automotive, chemical, and other industries.

Features and Benefits:

1. Chemical Resistance Comparison: Excellent chemical resistance, resistant to acids, alkalis, and various solvents.
2. High-Temperature Resistance Comparison: Withstands FKM/ETP standards, exhibits excellent high-temperature resistance, and maintains stability.
3. Overall Performance: Superior chemical resistance and high-temperature performance compared to other materials, making it suitable for harsh environments.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 5070B	FEPM-E	Peroxide	70	Black	-15℃~230℃/ 5℉~446℉	★★★☆☆	71
Katon® 5080B	FEPM-E	Peroxide	80	Black	-15℃~230℃/ 5℉~446℉	★★★☆☆	71
Katon® 5070W	FEPM-E	Peroxide	70	White	-15℃~230℃/ 5℉~446℉	★★★☆☆	57
Katon® 5075W	FEPM-E	Peroxide	75	White	-15℃~230℃/ 5℉~446℉	★★★☆☆	57

Recommended Applications:

- High-temperature steam and chemical processing systems.
- General-purpose seals for acids, halogenated hydrocarbons, and diester lubricants.
- Automotive and aerospace fuel systems, including oxidized fuels like MEOH and MTBE.
- Hydraulic systems, engine lubricants, and transmission fluids.
- Oilfield exploration, etching processes, and steam boilers.
- Applications requiring superior permeability resistance and robust mechanical properties.

Not Recommended Applications:

- Exposure to ketones (e. g., MEK) or esters (e. g., ethyl acetate).
- Environments involving Skydrol®, automotive or aircraft brake fluids.
- Systems exposed to ammonia, low-molecular-weight esters, or ethers.

High-Performance Chemical Applications 230°C

Application Overview:

Katon® 7100 offers high chemical resistance and exceptional sealing capabilities across a wide range of aggressive media. With a temperature range of -10°C to 230°C, this versatile material is designed for demanding applications in chemical processing, oil and gas, and food and pharmaceuticals. Its low compression set, outstanding thermal stability, and resistance to aggressive chemicals make it an ideal choice for critical applications.

Features and Benefits:

1. **Chemical Resistance**: Withstand a wide variety of chemicals, including acids, alkalis, fuels, and solvents.
2. **Thermal Stability:** Reliable performance across a broad temperature range, withstanding extreme conditions.
3. **Long-Term Durability:** Maintains long-term sealing performance in challenging environments.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Fluorine content % ±3 (tested in non-filled material state)
Katon® 7175B	FFKM	Peroxide	75	Black	-10℃~230℃ / -4℉~446℉	72
Katon® 7180B	FFKM	Peroxide	80	Black	-10℃~230℃ / -4℉~446℉	72
Katon® 7175W	FFKM	Peroxide	75	White	-10℃~230℃ / -4℉~446℉	72
Katon® 7180W	FFKM	Peroxide	80	White	-10℃~230℃ / -4℉~446℉	72
Katon® 7178W	FFKM	Peroxide	78	White	-10℃~230℃ / -4℉~446℉	72

Recommended Applications:

- Semiconductor manufacturing processes, including plasma etching, UV curing, and high-ozone environments.
- Vacuum seals for etching and deposition equipment in cleanrooms.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Food and pharmaceutical industries requiring high-purity, durable sealing solutions.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

High-Performance Chemical Applications 260°C

Application Overview:

Katon® 7200 Series is engineered for applications demanding superior chemical resistance and high-temperature stability. With an extended temperature range of -10°C to 260°C, it provides exceptional performance in extreme environments.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 7275B	FFKM	Peroxide	75	Black	-10°C~260°C / 14°F~500°F	★★★★☆	72
Katon® 7280B	FFKM	Peroxide	80	Black	-10°C~260°C / 14°F~500°F	★★★★☆	72
Katon® 7275W	FFKM	Peroxide	75	White	-10°C~260°C / 14°F~500°F	★★★★☆	72
Katon® 7280W	FFKM	Peroxide	80	White	-10°C~260°C / 14°F~500°F	★★★★☆	72
Katon® 7275C	FFKM	Peroxide	73	Translucent Yellow	-10°C~260°C / 14°F~500°F	★★★★☆	72

Features and Benefits:

1. **Chemical Resistance**: Withstand a wide variety of chemicals, including acids, alkalis, fuels, and solvents.
2. **Thermal Stability:** Reliable performance from -10°C to 260°C, withstanding extreme conditions.
3. **Long-Term Durability:** Maintains long-term sealing performance in challenging environments.

Recommended Applications:

- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

High-Performance Chemical Applications 290°C

Application Overview:

Katon® 8000 Series offers superior chemical resistance, and excellent thermal stability. With a temperature range of -10°C to 290°C, this material ensures exceptional sealing performance in extreme conditions. Designed for various industries, including chemical processing, food processing, pharmaceuticals, and petroleum exploration. Offering reliability under high-temperature and chemical exposed conditions.

Katon® Compound	配方主膠	架橋系統	邵氏硬度A (±5)	產品顏色	工作溫度	價格範圍	氟含量% ±3（在未填充材料狀態下測試）
Katon® 8075B	FFKM	Peroxide	75	Black	-10℃~290℃ / 14℉~554℉	★★★★☆	72
Katon® 8075W	FFKM	Peroxide	75	White	-10℃~290℃ / 14℉~554℉	★★★★☆	72
Katon® 8175C	FFKM	Peroxide	77	Umber	-10℃~290℃ / 14℉~554℉	★★★★☆	72

Features and Benefits:

1. **Wide Temperature Resistance:** Long-term stability up to 290°C, with short-term resistance up to 317°C.
2. **Superior Chemical Compatibility:** Resistant to acids, alkalis, solvents, fuels, and aggressive industrial chemicals.
3. **Long-Term Durability:** ensures sustained sealing performance in challenging environments

Recommended Applications:

- Vacuum seals for etching and deposition equipment.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Food and pharmaceutical industries requiring high-purity, durable sealing solutions.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

High-Performance Chemical Applications 317°C

Application Overview:

Katon® 9000 Series are engineered for ultra-high temperature applications, offering a broad operational range from -10°C to 317°C and short-term exposure up to 340°C, ensuring reliability in harsh environments exposed to aggressive chemicals, extreme temperatures, and high-pressure conditions.

Features and Benefits:

1. **High Temperature Resistance :** Withstands temperatures up to 317°C (short-term exposure up to 340°C).
2. **Superior Chemical Resistance :** Withstand a wide variety of chemicals, including acids, alkalis, fuels, and solvents.
3. **Exceptional Plasma Resistance :** Provides durability in plasma-intensive processes.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 9075B	FFKM	Triazine	75	Black	-10℃~317℃ / 14℉~602℉	★★★★★	72
Katon® 9080B	FFKM	Triazine	80	Black	-10℃~317℃ / 14℉~602℉	★★★★★	72
Katon® 9075W	FFKM	Triazine	75	Light Cyan	-10℃~317℃ / 14℉~602℉	★★★★★	72
Katon® 9075C	FFKM	Triazine	72	Dark Amber	-10℃~317℃ / 14℉~602℉	★★★★★	72

Recommended Applications:

- Vacuum seals for etching and deposition equipments.
- Chemical process equipment such as reactors, pumps, and valves.
- Oil and gas applications involving hydrocarbons and mixed process streams.
- Food and pharmaceutical industries requiring high-purity, durable sealing solutions.
- Steam-in-place (SIP) and clean-in-place (CIP) systems.

Not Recommended Applications:

- Hydrogen Sulfide (H_2S) Exposure – Use Katon® 7900 Series for H_2S-resistant applications.
- Applications requiring resistance to specific halogenated fluids without specialized grades.
- Uranium Hexafluoride (UF_6) Exposure

Extreme Chemical Environments & Specialized Applications

Application Overview:

The KATON® 7900 series is a premium FFKM perfluoroelastomer designed for high-purity and high-temperature environments, delivering exceptional chemical resistance, thermal stability, and sealing performance. It is ideal for oil & gas, petrochemical, and semiconductor applications, with proven resistance to a wide range of aggressive chemicals and excellent RGD/ED performance.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 7975B	FFKM	Peroxide	78	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72
Katon® 7975W	FFKM	Peroxide	75	WHITE	-10℃~230℃/-4℉~446℉	★★★★☆	72
Katon® 7990B	FFKM	Peroxide	93	BLACK	-10℃~230℃/-4℉~446℉	★★★★☆	72

Features and Benefits:

1. **Excellent Chemical Resistance:** Superior resistance to acids, alkalis, solvents, amines, and oxidizers, with consistent sealing performance.
2. **High Purity:** Low metal ion extraction, low particle generation, ideal for high-purity process applications.
3. **Wide Temperature Range:** Reliable performance from -10°C to 230°C.
4. **RGD/ED Resistance:** Meets industry requirements for resistance to rapid gas decompression.

Recommended Applications:

- Semiconductor manufacturing equipment (photolithography, etching, stripping, cleaning, CVD, ALD, and CMP processes).
- Oil & gas production equipment (offshore, subsea, drilling, and wellhead equipment, where applicable).
- Refining and chemical processing, including high-purity processes.
- Petrochemical process equipment: high-sour gas environments (H_2S, high CO_2).
- Where high-performance seals are required for resistance to strong oxidizers, amines, and mixed chemicals.

Not Recommended Applications:

- Use with fluorinated refrigerants or uranium hexafluoride.
- Environments involving gaseous alkali metals.
- Applications requiring resistance to specific halogenated fluids without specialized grades.

Exhaust Pipeline Seals for Electronics Factories

Application Overview:

The Exhaust Pipeline Seals for Electronics Factories category is engineered for demanding semiconductor manufacturing environments. These seals are designed to withstand extreme conditions, including high heat, corrosive chemicals, and plasma exposure. Offering exceptional chemical compatibility, thermal resistance up to 200-230°C, and low outgassing, they ensure reliable sealing in highly sensitive operations.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 2075B	FKM-Type 2	Peroxide	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68~70
Katon® 1075B	FKM-Type 1	Bisphenol	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 7175B	FFKM	Peroxide	75	BLACK	-10℃~230℃ / -4℉~446℉	★★★★☆	72

Features and Benefits:

- Superior resistance to high temperatures
- Enhanced plasma resistance
- Excellent chemical compatibility, including resistance to acids, solvents, and organic and inorganic compounds

Recommended Applications:

- Acidic gases in semiconductor exhaust systems.
- Hydrocarbons and fluorinated fluids in electronics manufacturing.
- High-temperature amine-based compounds and nitro hydrocarbons (e. g., nitrobenzene, aniline).

Not Recommended Applications:

- Environments with ketones (e. g., MEK).
- Exposure to halogenated refrigerants or brake fluids.
- Applications involving steam, hot water, polar solvents, or low molecular weight organic solvents.

Application Overview:

The Food & Life Sciences application category provides high-quality O-rings and gaskets compounds designed to meet the stringent requirements of the food and beverage industries. These seals are engineered to handle challenges such as chemical compatibility, hygiene, and compliance with global food safety regulations, ensuring safety and reliability in critical applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 1070B	FKM-Type 1	Bisphenol	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075B	FKM-Type 1	Bisphenol	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1080B	FKM-Type 1	Bisphenol	80	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1090B	FKM-Type 1	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 7175B	FFKM	Peroxide	75	BLACK	-10℃~230℃ / -4℉~446℉	★★★★☆	72
Katon® 7175W	FFKM	Peroxide	75	WHITE	-10℃~230℃ / -4℉~446℉	★★★★☆	72
Katon® 8075B	FFKM	Peroxide	75	BLACK	-10℃~290℃ / 14℉~554℉	★★★★☆	72
Katon® 8075W	FFKM	Peroxide	75	WHITE	-10℃~290℃ / 14℉~554℉	★★★★☆	72

Features and Benefits:

- Certain compounds are designed for metal detection
- Compatible with oils, acids, and cleaning agents

FDA APPROVED

Recommended Applications:

- Food and beverage processing with compliance to FSMA and safety regulations.
- Sealing solutions for pumps, valves, mixers, and reactors in hygienic environments.
- High-temperature and chemical-resistant applications in food production.
- Applications requiring metal-detectable seals for contamination control.

Not Recommended Applications:

- Use with chlorinated hydrocarbons or ketones.
- Applications involving organic refrigerants or aromatic fuels.
- Exposure to carbon tetrachloride or extreme alkalis.
- Situations requiring resistance to specific polar solvents.

Application Overview:

The Pneumatics, Hydraulics & Solenoid Valves category offers high-performance O-rings and gaskets designed for demanding applications in pneumatic and hydraulic systems. These seals are optimized for use in solenoid valves, hydraulic cylinders, and pneumatic couplings, providing excellent resistance to oils, water, and extreme conditions. Engineered to reduce maintenance costs and extend equipment life, they are ideal for dynamic and static sealing applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 2060C	FKM-Type 2	Peroxide	60	Translucent Off-White	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68-70
Katon® 2065C	FKM-Type 2	Peroxide	65	Translucent Off-White	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68-70
Katon® 2070C	FKM-Type 2	Peroxide	70	Translucent Off-White	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68-70
Katon® 2075C	FKM-Type 2	Peroxide	75	Translucent Off-White	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68-70
Katon® 2080C	FKM-Type 2	Peroxide	80	Translucent Off-White	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	68-70

Features and Benefits:

- Designed for long-term use in pneumatic and hydraulic systems
- Excellent resistance to oils, water, and gases
- Improved sealing strength and performance
- Cost-Effective

Recommended Applications:

- Hydraulic and pneumatic systems with oil and water resistance.
- Air cylinders, reverse check valves, sliding pressure relief valves, and safety valves.
- Seals for spray pipes, oil hoses, spray guns, and automotive or industrial spray systems.
- Water check valves, needle valves, and magnetic bases for industrial applications.

Not Recommended Applications:

- Use with ketones (e. g., MEK) or halogenated hydrocarbons.
- Applications involving automotive or aircraft brake fluids.
- Environments with strong acids, direct sunlight, ozone, or weathering.
- Systems requiring polar solvents, steam, low-molecular-weight organic solvents.

Application Overview:

The Industrial Equipment Sealing category provides versatile O-ring and gasket solutions tailored for a wide range of industrial applications. These seals are designed to handle extreme conditions, including broad temperature ranges, chemical exposure, and high-pressure environments. With extensive mold availability, we deliver both standard and bespoke sealing solutions for industrial equipment.

Features and Benefits:

- Designed to perform under a wide range of temperatures and pressures.
- Cost-Effective Solutions
- Extensive Inventory

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 1070B	FKM-Type 1	Bisphenol	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075B	FKM-Type 1	Bisphenol	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1080B	FKM-Type 1	Bisphenol	80	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1090B	FKM-Type 1	Bisphenol	90	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1070R	FKM-Type 1	Bisphenol	70	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075R	FKM-Type 1	Bisphenol	75	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1080R	FKM-Type 1	Bisphenol	80	BROWN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1070W	FKM-Type 1	Bisphenol	70	OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075W	FKM-Type 1	Bisphenol	75	OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1070G	FKM-Type 1	Bisphenol	70	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075G	FKM-Type 1	Bisphenol	75	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1080G	FKM-Type 1	Bisphenol	80	GREEN	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66

Recommended Applications:

- Industrial equipment requiring seals for high and low temperatures.
- General-purpose industrial use with cost-effective options.
- Wide-ranging chemical exposure and medium-pressure environments.
- Sealing solutions for heavy machinery and industrial equipment.

Not Recommended Applications:

- Use with ketones (e. g., MEK) or halogenated hydrocarbons.
- Applications involving automotive or aircraft brake fluids.
- Environments with strong acids, direct sunlight, ozone, or weathering.
- Systems requiring polar solvents, steam, low-molecular-weight organic solvents.

Low Friction Coefficient

Application Overview:

The Low Friction Coefficient application category focuses on O-rings and gaskets designed to reduce wear and friction in demanding environments. These seals, made from fluorinated elastomers with internal PTFE lubrication, offer excellent chemical resistance, durability, and low permeability, making them ideal for industrial, mechanical, and optical equipment applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® PF75VW	FKM-Type 1	Bisphenol	75	OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® PF80VW	FKM-Type 1	Bisphenol	80	OFF-WHITE	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® PF80V	FEPM-P	Peroxide	80	WHITE	-15℃~230℃/ 5℉~446℉	★★☆☆☆	57

Features and Benefits:

- Resilient to chemicals, oils, and solvents
- Internally lubricated with PTFE
- Operates reliably in extreme temperatures
- Resistance to ozone, oxygen, and various hydraulic and synthetic oils
- PF75VW and PF80VW are cost-effective grades specifically designed for **water processing applications**. If the process involves **both basic and advanced chemical liquids**, PF80VW is recommended for optimal performance.

Recommended Applications:

- Seals for sliding joints and pipe packers.
- Tool seals for machining equipment.
- Ball valve and centrifugal pump seals.
- Reciprocating pumps and compressors in industrial systems.

Not Recommended Applications:

- Use with ketones (e. g., MEK) or halogenated hydrocarbons.
- Applications involving automotive or aircraft brake fluids.
- Environments with strong acids, direct sunlight, ozone, or weathering.
- Systems requiring polar solvents, steam, low-molecular-weight organic solvents.

Low Compression Set

Application Overview:

The Low Compression Set application category offers O-rings and gaskets specifically designed to maintain sealing integrity under extreme pressures and temperatures. These seals provide superior chemical resistance, low deformation over time, and excellent reliability, making them ideal for hydraulic systems, high-pressure equipment, and other demanding applications.

Katon® Compound	Base polymer	Curing System	Shore A (± 5)	Finished Product Color	Operating Temperature	Price Range	Fluorine content % ±3 (tested in non-filled material state)
Katon® 1070B	FKM-Type 1	Bisphenol	70	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1075B	FKM-Type 1	Bisphenol	75	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66
Katon® 1080B	FKM-Type 1	Bisphenol	80	BLACK	-5℃~200℃ / 23℉~392℉	★☆☆☆☆	66

Features and Benefits:

- Minimal Compression Set
- High Pressure and Temperature Resistance
- Resists a wide range of chemicals, oils, and solvents
- Offers low permeability, excellent ozone and weather resistance.

Recommended Applications:

- Locations requiring seals with superior low-compression deformation.
- Systems exposed to extreme temperatures and high pressures.
- Applications needing excellent chemical and fluid resistance.
- Industrial hydraulic clamps, ensuring reliability and cost efficiency.

Not Recommended Applications:

- Use with ketones (e. g., MEK) or halogenated hydrocarbons.
- Applications involving automotive or aircraft brake fluids.
- Environments with strong acids, direct sunlight, ozone, or weathering.
- Systems requiring polar solvents, steam, low-molecular-weight organic solvents.

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