REECOS TECNNOLOGY CO. LTD.

高性能全氟化彈性體
PERFLUOROELASTOMER

We are committed to developing seal materials with even longer life span.

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Company Profile

ReeCos Technology Co., Ltd. was established on 2009. Our goal is to provide the supreme quality products to worldwide market.Perfluoro-elastomers is one of our major products. In responding to the rapid change of market demands,we provide a ISO certificated factory in New Taipei city.Except for providing standard fluoro-elastomer Fluonax™ (FKM) and perfluoro-elastomers Fluomax™(FFKM) O-rings. ReeCos provide customized service as well. Such as FKM & FFKM washer, packing, seals, diaphram valve membranes,expansion seals and metal joint. We also welcome FKM & FFKM compounds inquiries and ODM cooperation.

ReeCos Technology Co., Ltd. Perfluoro-elastomers applications cover semi-conductor industry, electronics industry, chemical industry, petroleum industry ,Aerospace industry and manufacturers of API Pumps, API Mechanical Seal, Valves...etc. These are flagship industries worldwide. Hence ReeCos adopts ” MIT Supreme Standard and Quality “ policy to handle the projects from those important clients in order to provide the best solutions to their applications of strict production procedures. As these strict processes such as etching, high temperature applications for semi-conductor & electronics customers, ReeCos aslo provide Advanced Ceramics components, e.g. Focus Ring, Ceramics ball, Hot Edge Ring, Gas Distribution Plate, Heaters, RF Windows, Vacuum Chuck, Dummy Wafers.

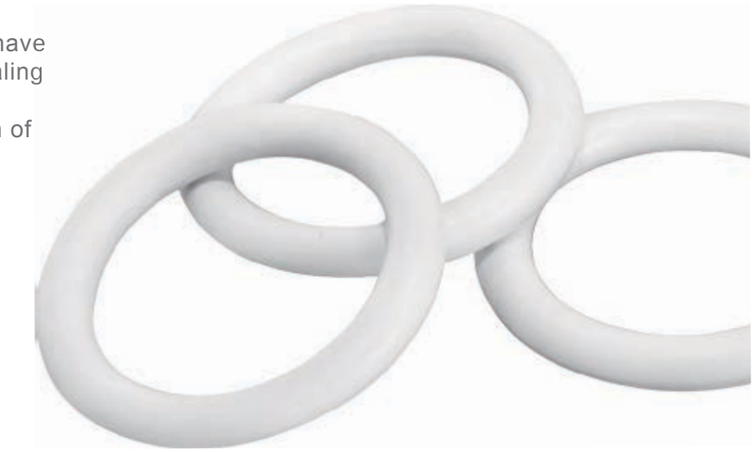
ReeCos Technology Co., Ltd. Provides the best solution to worldwide clients on the applications of FKM & FFKM and Advanced Ceramics components. A fluent communication with our clients is the only way to find the best solution. We welcome the comments from all aspects to help us grow and be able to devote our effort in the global industry.

CERTIFIED ISO 9001:2008 COMPANY

Product Introduction

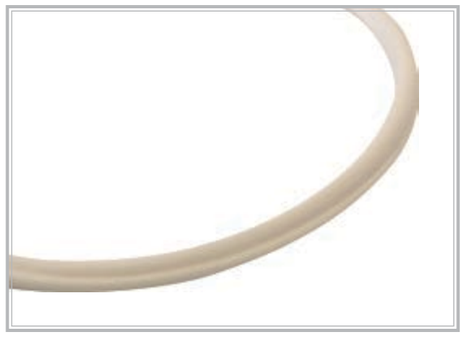
Materials of the sealing parts have significant effect on its tightly sealing function and operation life time. The material decides the function of the sealing parts.

ReeCos Technology brings out a series of perfluorinated product to meet the demands from client to apply them toharsh operation conditions.



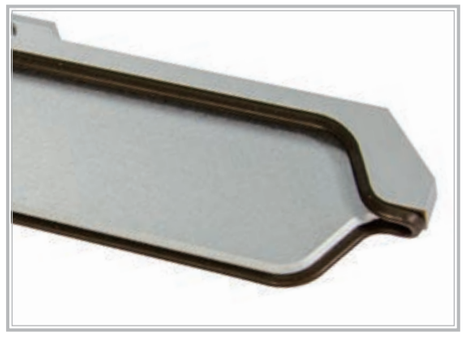
O-Ring

The challenge of using Seal ring (O-ring) comes from how to choose a proper specification of chemical compatibility, operation temperature, pressure resistance, machinery operation condition,rigidity, and dimension. We can provide all standard size seal ring of JIS B2401 series, NW series, AS 568A series an ISO 3601 series.



GATE DOOR

ReeCos Technology has in house molding department. We can develop metal parts such as aluminum or iron part for the gate door. And we keep on making progress on improving our technigue in adhering perfluorinated material onto aluminum / iron parts and develop a series of seal gate door product.



Customerized

By the strong support of our molding and R&D team, we keep on creating successful cases of ODM / OEM products of shaped part and clip / holder to satisfy the demand of clients in different industry.

Characteristics of Perfluorinated Elastomer

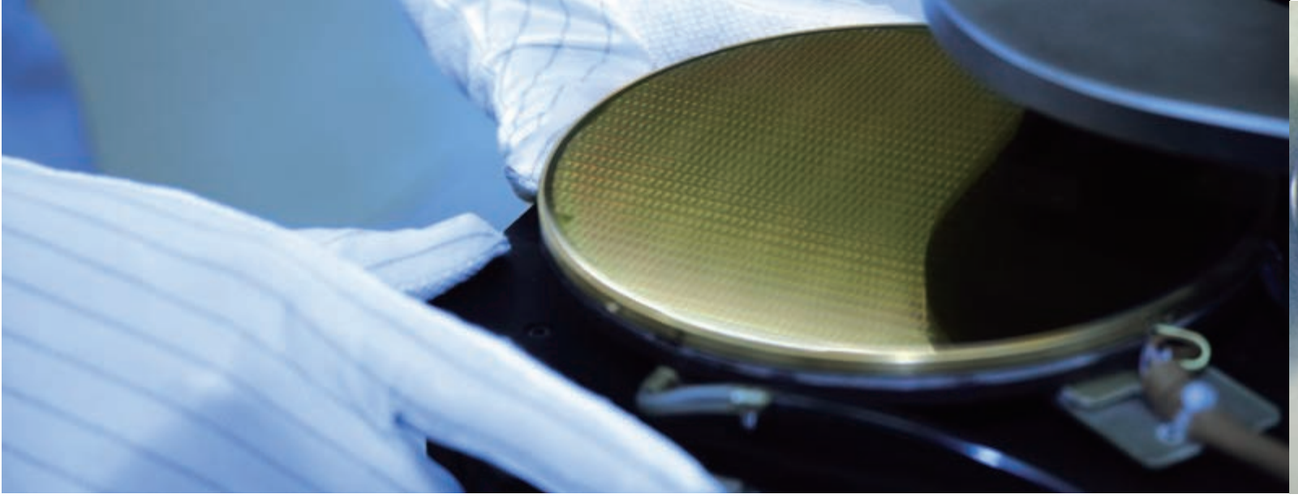
* **Chemical resistance**
  Perfluorinated elastomer has high resistance against to strong Acid / Alkaline, Amines, Ethers and Organic solvents. The high chemical resistance increases the seal parts' stability in all kinds of solvent.
* **High Temperature Resistance**
  Even under extremely high temperature, the elastomer still can provide high sealing function and keep its characteristics. Our current standard product can continuously operate stably under high temperature of 300°C.
* **Tolerance of Plasma**
  For the application in plasma, the elastomer keep its high cleanliness characteristic. It can sustain the impact of plasma for a long period of time and still keep its sealing function.

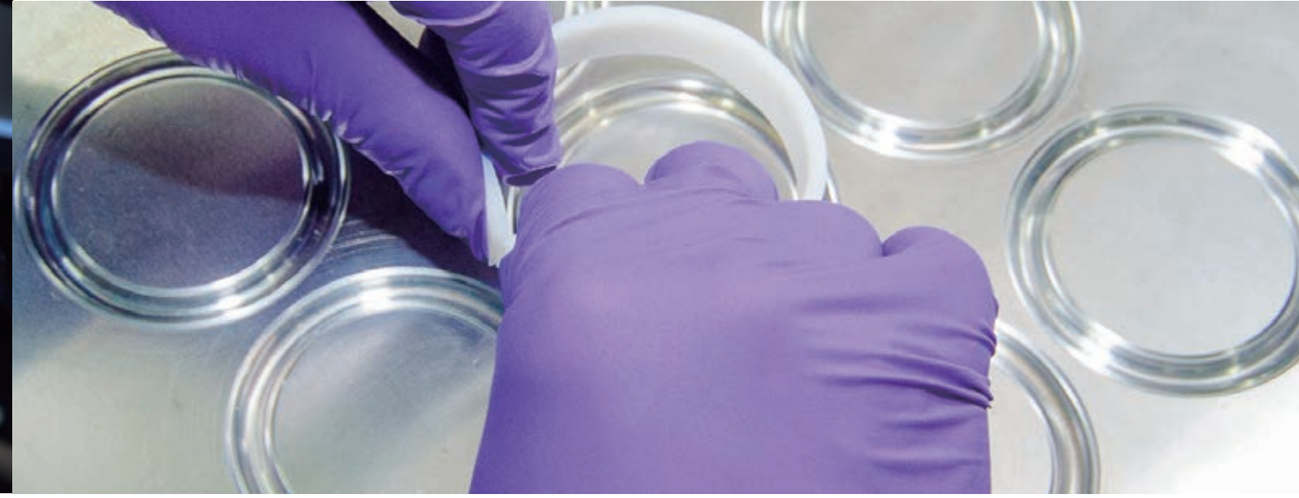
Fields of Application

Perfluorinated elastomer is wildly used in industrials of semi-conductor, panel, petroleum and chemical.
It is suitable for the process of etching and thin film of semi-conductor. The elastomer is also a stable solution for harsh conditions operation such as high temperature, medicine fluid, strong acid/alkaline...and so forth.

Surroundings of Application

Sealing fileds for Chamber Seal, Fitting Seal, Gas Inlet / Outlet Seal, Valves Seal, Mechanical Seal...etc.



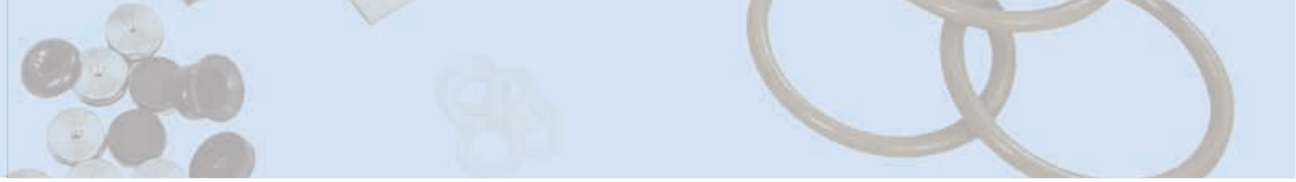


Popular applications in Semi-conductor process

	Process	Operation (℃)	Environmental Conditions	Recommended Material	Popular Applicaitons
Wet Process	Etching	25~200	$HF,H_2O,HNO_3,H_2O_2,H_3PO_4,H_2SO_4$	**Chemical Resistant**	Drain piping Door Lid Filter Connector Fittings meters
	Clean	25~150	UPDI,O_3,SC-1,2, HF49%		
	Strip	25~150	Alkanolamine,nMP, Hydroxlamine		
	Photo	25~150	H_2SO_4+Oxidant,nMP, Organic acids		
Thermal Process	Diffusion	150~315	N_2,O_2,H_2O,Cl_2,HCl	**High Temperature Resistant**	Quartz tube Chamber Center ring Fittings
	Lamp RTP	150~315	N_2,IR		
Plasma Process	Etching	25~200	$BCl_3,CF_4,SF_6,C_3F_8,CHF_3,O_2,H_2$,HBr,$Cl_2$	**High Cleanliness**	Door seals Gate valve Transfer Gas Inlet Lid/Body Center ring View port
	Strip/Ashing	25~250	O_2,NH_3,CF_4,CHF_3, Steam		
	HDPCVD	50~315	SiH_4,O_2,SiF_4,NF_3,Ar, PH_3,He		
	PECVD	50~250	TEOS,TMS,$CF_4,N_2O,C_2F_6,SiH_4,O_2,NH_3$		
	SACVD	50~315	TEOS,TEB,TEP,O_3,NF_3,N_2		

Fluonax™ & Fluomax™ Compounds Information

Compound & Product No.		Color	Hardness (Shore A)	Max Temperature(℃)	Tensile Strength(Mpa)	Elongation(%)	Compression Set
Fluonax™ (FKM)	CRLT7321	Transparent	73	200	16.0	395.0	29.0
	CRB7561	Black	75	230	17.5	212.0	53.0
Fluomax™ (FFKM)	FBW78708 (FDA)	White	78	250	12.3	211.0	35.0
	CRB7871	Black	78	250	12.5	223.0	34.0
	CRW7871	White	78	250	12.3	211.0	35.0
	TRB7381	Black	73	315	11.8	257	27.4
	TRW7381	White	70	315	11.8	231	26.3
	SC7691	Deep Amber	76	280	16.9	253	17.4
	CTRB7412	Black	74	330	12.6	181.8	13.1
	CTRW7412	White	74	330	11.2	177.8	14.2



Fluonax™ Parts Information

CRLT7321	
Hardness (Shore A)	73
Max. continueous Operation Temp.	230 (℃)
A transparent elastomer which keeps high cleanliness in production process. It is an excellent option of sealing parts for high cleanliness demand process and plasma resistance process.	

Advanced Fluoro Series - High Cleanliness Type

For this high cleanliness series, the product itself is transparent.
It has high performance on the characteristics of plasma resistance and cleanliness.
This series is wildly used in Semi-conductor and plasma process.
Applications : Dry Etching, Ashing, CVD… etc.
Operation temperature : Recommended temperature Max. up to 230°C (continuous operation).

CRB7561	
Hardness (Shore A)	75
Max. continueous Operation Temp.	230 (℃)
It has superior performance of chemical resistance and corrosive resistance requested in the processes which use strong acid, alkaline or other corrosive material.	

Advanced Fluoro Series - Chemical Resistance Type

For this high chemical resistant series, it is wildly used in harsh environment such as chemical factory and semi-conductor factory which use corrosive materials such as strong acid or strong alkaline in the production process. It has superior performance than ordinary fluoro rubber which is not resistant to acid or alkaline.
Applications : Corrosive environment
Operation temperature : Recommended temperature Max. up to 230°C (continuous operation).

Fluomax™ Parts Information

CRW7871	
Hardness (Shore A)	78
Max. continueous Operation Temp.	230 (℃)
It provides high resistance to acid, alkaline, amines and other chemical solvents.E	

Perfluoro Series - Chemical Resistance Type

For this high chemical resistant series, it is wildly used in harsh environment such as chemical factory and semi-conductor factory which use corrosive materials such as strong acid or strong alkaline in the wet process of etching.
Applications : Wet Process, Chemical solvent tank, Chemical pump…etc.
Operation temperature : Recommended temperature Max. up to 230°C (continuous operation).

TRB7381	
Hardness (Shore A)	73
Max. continueous Operation Temp.	315
It provides high stability and superior chemical resistance and sealing function under high temperature. It also has high performance on Aluminum parts adhesion.	

Perfluoro Series - High Temperature Resistance Type

For this high temperature resistant series, it has superior characteristic in physical property which highly increases the temperature resistance in thermal cracking process(oxygen-free environment of TGA test). Under proper operation, this series of elastomer can be used under the temperature > 300°C.
Applications : Diffusion, Implant Anneal, RTP…etc.
Operation temperature : Recommended temperature Max. up to 315°C (continuous operation).

Fluomax™ Parts Information

SC7691	
Hardness (Shore A)	76
Max. continueous Operation Temp.	280（℃）
It has superior performance of high cleanliness, plasma resistance and chemical resistance in the dry etching process.	

Perfluoro Series - Supreme Cleanliness Type

For this high cleanliness series, only trace or even no curing agent is added in the production process. Hence it can ensure the excellent performance of cleanliness in most of the plasma environment to increase the defect-free rate.
Applications : Dry Ecthing, HDPCVD, PECVD, PVD, Metal CVD… etc.
Operation temperature : Recommended temperature Max. up to 280°C (continuous operation).

CTRB7412	
Hardness (Shore A)	74
Max. continueous Operation Temp.	330（℃）
Except for the high stability, superior chemical resistance and sealing function under high temp. , this series also has high mechanical properties among Perflourinated elastomer.	

Perfluoro Series - Supreme Cleanliness Type

For this compression set resistance series, it has high physical properties under high temperature operation. Under proper operation, this elastomer can be continuously used under temperature > 300°C. It has lower compression set ration among the Fluomax™.

Production capability of standard and customized products

✳ All specification of Fluorinated and Perfluorinated Elastomers

- Standard Seal-ring series, US AS568 series, Japan JIS B 2401… etc.
- Aluminum Adhesion : Silt valve door series, Pad series… etc.
- Shaped parts development

✳ Capability of Mold development

- Sufficient facilities of mold development
- Professional mold developing capability
- Outstanding and professional manufacturing technology

SOP production procedure

Mixing

- Complete incoming inspection and mixing SOP process.
- Recommend suitable material to client: following the operation environment, conditions and production procedure which client provided.
- The mixing process of Perfluorinated products is proceeded in clean room.

Manufacturing

- Complete SOP Production Process
- Complete SOP Production Process
- Clean Room Production Line

QC and Packing

- Complete QC process
- Grind, measurement and check
- Package being done in clean room

3M material
Made in USA 3M material
Complete SOP incoming inspection being held

Reecos

"Made In Taiwan(MIT) with Supreme Standard and Quality"

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