



EMI SHIELDING SOLUTIONS

FABRIC-OVER-FOAM (FOF)





## Company Overview

Established in Shenzhen, China, in 1993, FRD manufactures a wide range of products including EMI Shielding Materials, Thermal Interface Materials and other related electronic materials. FRD is a registered National Hi-Tech Enterprise and certificate of ISO9001, ISO14001, QC080000 and OHSAS18001.

FRD works to satisfy the needs of its customers and we excels in speed and flexibility. FRD has long-term business relationships with customers such as Huawei, ZTE, Cisco, Nokia, Alcatel-Lucent, Juniper, Dell, H3C, Microsoft, Lenovo, Xiaomi, Samsung, Foxconn, Flextronics, Jabil, PEGATRON, SANMINA-SCI, O-Film Emerson, GREE, BYD, FUJI XEROX, TOSHIBA, etc.

As a leading manufacturer in its industry, FRD is growing tremendously. We are willing to provide quality products and services for more customers in various industries than our competition. These industries include networks & telecommunication equipment, consumer electronics, automotive, power supplies, lighting, military, aerospace, etc.

In future, FRD will continue to meet the challenge, to grow the FRD brand name, and to strive to become a world-class technology leader in new materials for all of our manufacturing processes.



FRD Building (Shenzhen)



**New South China Base**

Shenzhen Guangming FRD New Materials Park



**East China Base**

Kunshan FRD Electronic Materials Co.,Ltd.



**North China Base**

Tianjin FRD Science & Technology Co.,Ltd.

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## Fabric-Over-Foam(FoF)



## FRD<sup>®</sup> Fabric-Over-Foam(FoF)

FRD now has been conducting R&D, design and manufacturing conductive fabric projects. A number of the relevant technologies are in a leading position in the domestic industry. For example, the product of Halogen-Free Flame-Retardant Fabric-Over-Foam launched in 2009 filled the domestic to the product gaps. FRD now has 24 full-automatic high-speed production lines, monthly production capacity of more than 7 million meters.

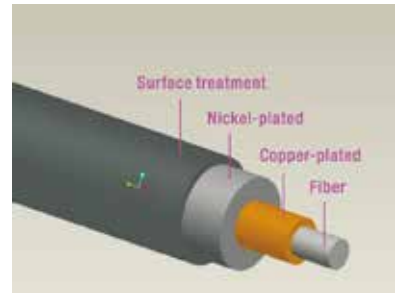
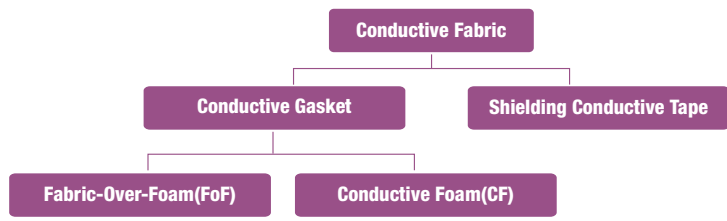
FoF product line shares 80% of the conductive fabric project. Its customers include in different areas, such as consuming electronics, telecommunications, automotive, medical, military, and many other categories.

FoF gasket is the conductive fiber cloth which is electrically conductive and corrosion resistant, lined with PU foam of low compression force. It has a good shielding effectiveness. Conductive fabric is the polyester fiber covered with copper and nickel metal. The combination of copper and nickel provide excellent conductivity and shielding effectiveness. FoF gasket provides excellent shielding effectiveness in the range of 100KHz to 1GHz.

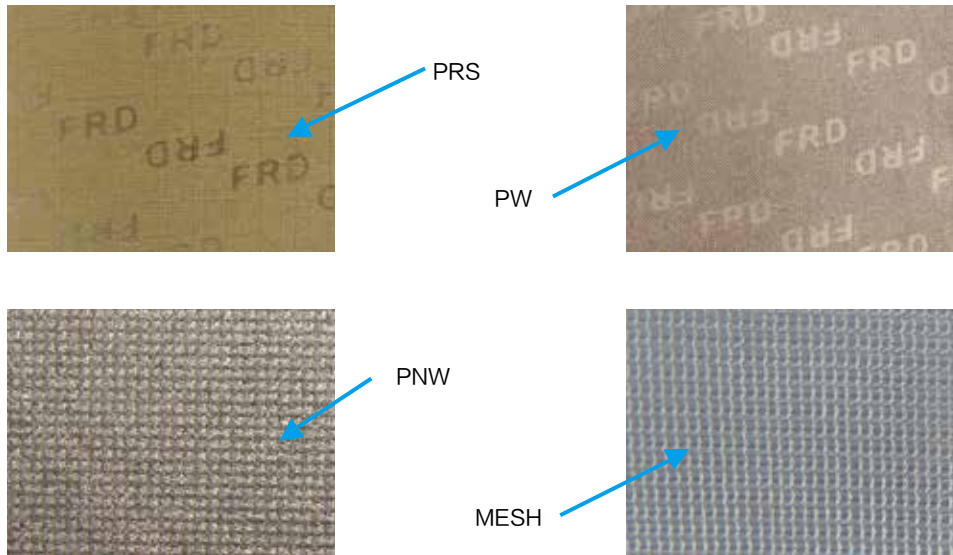
FoF gasket is particularly applicable to the low compression force environments. It is a cost effective product that can apply consuming electronics, telecommunications, automotive, medical, military, ect..



**Conductive Fabric Project Classify**



**FoF Raw Materials**



**Conductive Fabric Production Workshop**



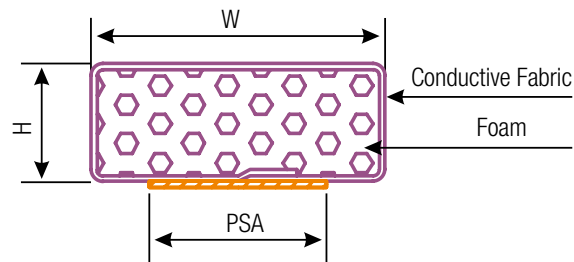
## Conductive Fabric Over Foam (FOF)

### Fabric-Over-Foam(FoF)

FoF gasket is for the substrate with a conductive fabric, elastic properties and has a certain function of anti-electromagnetic interference electronic equipment used to prevent the electromagnetic waves through the components.

In order to give client-side design engineers to provide more useful information, we are here to talk about the product features FoF gasket, type, material, product standard sizes and configurations. If these elements can not meet your needs, please contact our engineers, we will be based on your needs you need to design and manufacture of products.

### FoF Gasket Structure:



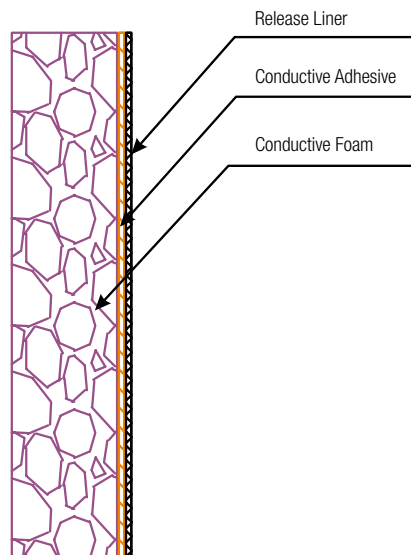
## Conductive Foam(CF)

### Conductive Foam(CF)

The CF is a type of brand new shielding material, it is an X-Y-Z-axis conductive material, of which the shielding effectiveness is greater than traditional FOF gaskets. It can meet the increasing demands of shielding effectiveness. CF is suitable for I/O port.

The CF is composed of 4 layers with the first layer of polyester fiber, the second layer of PU foam, the third layer of polyester fiber, the fourth layer of conductive adhesive.

### Conductive Foam:





## The Advantages of FOF

- Good conductivity, high shielding effectiveness ( $\geq 80$ dB)
- A good antioxidant, anti-corrosion
- Very good wear resistance, high reliability ( $\geq 100$  million times)
- Very soft, suitable for the occasion can not provide greater pressure
- Low price, it is very good shielding material
- Installation is simple and diverse, suitable for paste, slot
- Products adhere to ROHS, Halogen Free, REACH, UL94-V0 requirements in general.

Fabric-Over-Foam (FoF) is an excellent cost-effective EMI shielding material.

## Our Advantage

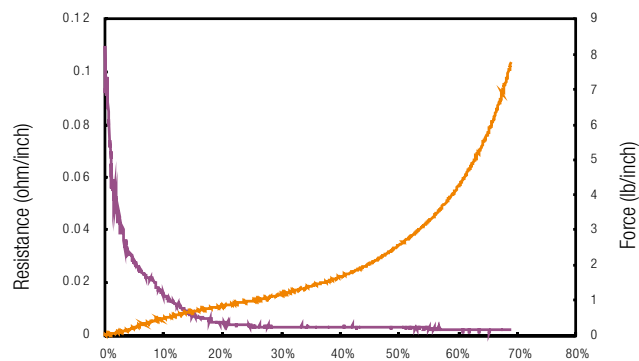
- Reserves experienced FOF design engineers who can provide the optimal shielding solutions based on the customers' requirements;
- Strong R&D capability, halogen free FOF gasket can meet UL94-V0 flame retardant;
- Quick response: Sampling within 24 hours,
- Output capacity: 7 million meters/month

## The Characteristics of FOF

Properties	Units	Value	Standard	Advantages
<b>Electrical Property</b>				
shielding efficiency	dB	>80	MIL-DTL- 83528C	High shielding effectiveness
Surface impedance	ohm/square	<0.05	FRD-04-323	Ultra-low-impedance
<b>Mechanical Property</b>				
Wear resistance	times	1,000,000	FRD-04-338	Strong wear resistance to ensure that the use of one million times, there will not be significantly decreased shielding performance
Compression set		<15%	FRD-04-336	A small residual deformation to ensure long-term reliable performance
Compression forces	lbs./in	1-5	FRD-04-329	Low compression force can maintain close contact between the joints
<b>Other Features</b>				
Flammability		UL94-V0	FRD-04-340	According to customer requirements, providing a variety of flame-retardant grades of products to choose from
RoHS		Pass	FRD-11-019	All products are environmentally friendly
Halogen-free		Pass		According to customer requirements, to provide halogen-free products
Service temperature	°C	-40 to 70		

## Test Data

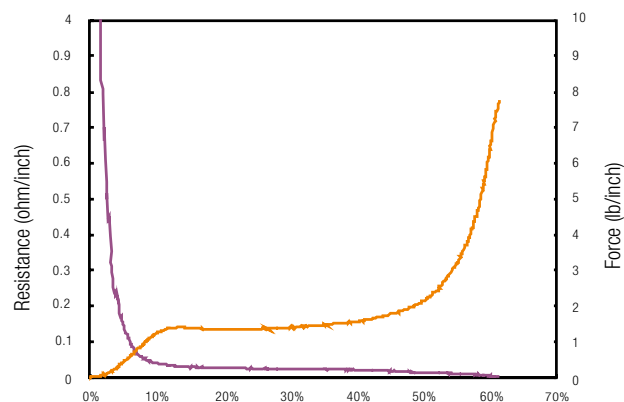
51R22 DFR Test Data



Compression

A rectangular FoF test data

52B20R DFR Test Data



Compression

A conductive foam test data

## Test Equipment

- Projection Testing Apparatuses
- Stripping Force Testing Apparatus
- Salt Spray Testing Machine
- Type EDX3600B RoHS Detector
- Horizontal-Vertical Flame Tester
- Steady Temperature Damp Testing Apparatus
- 4-Point Resistivity with Multi-meter
- Electronic Universal Test Machine
- Force Displacement Resistance Tester
- Textile Abrasion Tester
- A&D Electronic Density Meter
- Precision Thickness Gauge
- Optical Microscope
- Low DC Resistance Tester

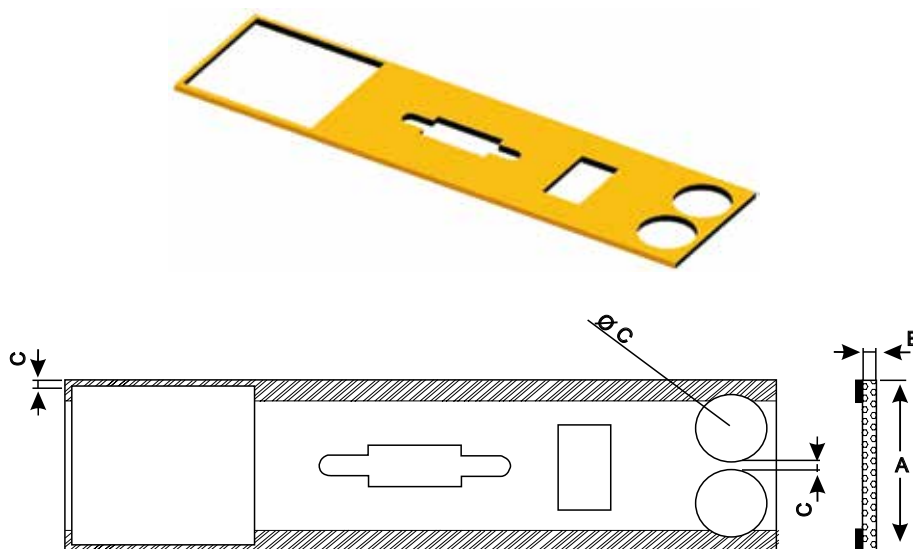
## The Product Size and Tolerance

### Tolerance Standard

- I/O: Height, Width, Length:  $\pm 0.5\text{mm}$
- Profile: Height & Width:  $\pm 0.5\text{mm}$
- Profile Length:
- 0.5 ----- 3mm:  $\pm 0.2\text{mm}$
- 3.0 ----- 6mm:  $\pm 0.3\text{mm}$
- 6.0 ----- 30mm:  $\pm 0.5\text{mm}$
- 30 ----- 120mm:  $\pm 0.8\text{mm}$
- 120 ----- 400mm:  $\pm 1.2\text{mm}$
- 400 ----- 1000mm:  $\pm 2.0\text{mm}$
- 1000 --- 2000mm:  $\pm 3.0\text{mm}$
- 2000 --- 4000mm:  $\pm 4.0\text{mm}$

### Dimension Notes

- A cross-section width of the product is less than 150mm, the thickness of B is less than 30mm
- I/O product, the hole -to -hole distance and the hole- to- edge distance must shorter than 1.5mm, the diameter of the hole must smaller than 1.5mm
- The directions of the adhesive and liner are the same as the wrapping direction
- The length of the product cannot be longer than 2500mm



## FOF Part Number System

**P/N: 51 X XX X X X X XXXXX X**

①    ②    ③    ④    ⑤    ⑥    ⑦    ⑧    ⑨

① **51 - PRODUCT TYPE**

51 - Fabric-Over-Foam

② **X - PROFILE SHAPE**

R	Rectangle	D	D-Shape	C	C-Shape
H	I/O	T	Triangle Shape	K	Bell
Q	Custom	P	P-Shape		

③ **XX - PROFILE NUMBERS**

Sequence code from 00 - ZZ, If enough 000 - ZZZ

④ **X - CUSTOMIZED OPTIONS**

1~9 or A-Z            Tape Type/Spec/Positions...

⑤ **X - Fillers**

A	No Foam	B	PU Foam
C	HD-PU Foam	D	LD-PU Foam
F	PET/FRP.....Carrier	K	HT -PU Foam
M	CF	N	Compression Foam
P	Poron or Bisco ( Service Temperature -40~125°C )		

⑥ **X - FLAMMABILITY RATING (FR)**

0	No Rating
1	UL94 V0 + ROHS
2	UL94 V0 + ROHS + Halogen-Free

⑦ **X - FABRIC COVERING**

A	AL Foil	B	Black Fabric
C	PRS Fabric	E	Ni/Cu PRS
H	Ni/Cu PET-TAF		

⑧ **XXXXX - LENGTH EXTENSION**

Five digits, for example, 12345 = 1234.5 mm

⑨ **X - IDENTIFICATION CODE**

In view of the same product, if the customer request unit/layout/packing and so on at the same time, should be distinguish from A to Z

## CF & Conductive Tape Part Number System

P / N : 52 X XXX X XXXX XXXX X

①    ②    ③    ④    ⑤    ⑥    ⑦

- ① **52 - PRODUCT TYPE**  
52 - Conductive Foam
- ② **X - ADHESIVE**  
A - No adhesive  
B - Conductive Adhesive  
C - Non conductive Adhesive  
D - Custom
- ③ **XX - PRODUCT THICKNESS**  
For example: 100 = 1.00 mm;    025 = 0.25 mm
- ④ **X - SHAPE**  
R - Rectangle  
P - Punching
- ⑤ **XXXX - WIDTH EXTENSION**  
Four digits, for example, 1234 = 123.4 mm
- ⑥ **XXXX - LENGTH EXTENSION**  
Four digits, for example, 1234 = 123.4 mm
- ⑦ **X - IDENTIFICATION CODE**  
In view of the same product, if the customer request unit/layout/packing and so on at the same time, should be distinguish from A to Z

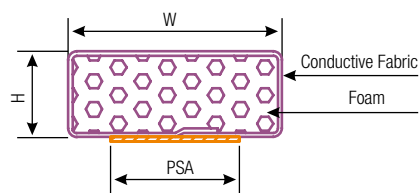
## FOF Gasket (Rectangle)

Rectangle														
P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)	
51R11	0.079	2.0	0.709	18.0	51R60	0.157	4.0	0.157	4.0	51RA9	0.079	2.0	0.118	3.0
51R13	0.118	3.0	0.236	6.0	51R62	0.059	1.5	0.157	4.0	51RB1	0.059	1.5	0.205	5.2
51R14	0.118	3.0	0.157	4.0	51R63	0.709	18.0	0.945	24.0	51RB2	0.079	2.0	0.508	12.9
51R15	0.028	0.7	0.394	10.0	51R64	0.197	5.0	0.394	10.0	51RB3	0.059	1.5	0.787	20.0
51R16	0.126	3.2	0.236	6.0	51R65	0.126	3.2	0.500	12.7	51RB4	0.098	2.5	0.197	5.0
51R17	0.118	3.0	0.197	5.0	51R66	0.197	5.0	0.315	8.0	51RB5	0.157	4.0	0.177	4.5
51R19	0.098	2.5	0.157	4.0	51R67	0.126	3.2	0.374	9.5	51RB6	0.059	1.5	0.236	6.0
51R20	0.252	6.4	0.252	6.4	51R68	0.500	12.7	0.500	12.7	51RB7	0.197	5.0	0.354	9.0
51R21	0.394	10.0	0.394	10.0	51R69	0.079	2.0	0.315	8.0	51RB8	0.079	2.0	0.433	11.0
51R22	0.118	3.0	0.118	3.0	51R70	0.059	1.5	0.315	8.0	51RB9	0.551	14.0	0.315	8.0
51R23	0.118	3.0	0.315	8.0	51R71	0.079	2.0	0.197	5.0	51RC1	0.374	9.5	0.500	12.7
51R24	0.059	1.5	0.197	5.0	51R72	0.472	12.0	0.394	10.0	51RC2	0.039	1.0	0.524	13.3
51R25	0.039	1.0	0.197	5.0	51R73	0.059	1.5	0.252	6.4	51RC3	0.020	0.5	0.063	1.6
51R26	0.039	1.0	0.394	10.0	51R74	0.039	1.0	0.079	2.0	51RC4	0.014	0.4	0.276	7.0
51R27	0.039	1.0	0.118	3.0	51R75	0.138	3.5	0.138	3.5	51RC5	0.157	4.0	0.197	5.0
51R28	0.055	1.4	0.098	2.5	51R76	0.024	0.6	0.354	9.0	51RC6	0.039	1.0	0.433	11.0
51R29	0.106	2.7	0.276	7.0	51R77	0.012	0.3	0.217	5.5	51RC7	0.157	4.0	0.138	3.5
51R30	0.098	2.5	0.264	6.7	51R78	0.094	2.4	0.929	23.6	51RC8	0.157	4.0	0.394	10.0
51R31	0.039	1.0	0.276	7.0	51R79	0.787	20.0	0.276	7.0	51RC9	0.039	1.0	0.787	20.0
51R32	0.059	1.5	0.394	10.0	51R80	0.020	0.5	0.157	4.0	51RD1	0.256	6.5	1.000	25.4
51R33	0.118	3.0	0.787	20.0	51R81	0.039	1.0	0.236	6.0	51RD2	0.110	2.8	0.197	5.0
51R34	0.256	6.5	1.122	28.5	51R82	0.094	2.4	0.929	23.6	51RD3	0.157	4.0	0.256	6.5
51R35	0.079	2.0	0.157	4.0	51R83	0.079	2.0	0.276	7.0	51RD4	0.197	5.0	0.157	4.0
51R36	0.315	8.0	0.591	15.0	51R84	0.079	2.0	0.138	3.5	51RD5	0.079	2.0	0.150	3.8
51R37	0.079	2.0	0.394	10.0	51R85	0.039	1.0	0.315	8.0	51RD6	0.059	1.5	0.709	18.0
51R38	0.020	0.5	0.276	7.0	51R86	0.177	4.5	0.157	4.0	51RD7	1.181	30.0	0.394	10.0
51R39	0.039	1.0	0.177	4.5	51R87	0.189	4.8	0.299	7.6	51RD8	0.252	6.4	0.500	12.7
51R40	0.035	0.9	0.472	12.0	51R88	0.276	7.0	0.236	6.0	51RD9	0.256	6.5	0.866	22.0
51R41	0.035	0.9	0.354	9.0	51R89	0.276	7.0	0.157	4.0	51RE1	0.079	2.0	0.098	2.5
51R42	0.067	1.7	0.157	4.0	51R90	0.315	8.0	0.236	6.0	51RE2	0.047	1.2	0.079	2.0
51R43	0.118	3.0	0.551	14.0	51R91	0.079	2.0	0.236	6.0	51RE3	0.098	2.5	0.866	22.0
51R44	0.157	4.0	0.220	5.6	51R92	0.039	1.0	0.157	4.0	51RE4	0.134	3.4	0.236	6.0
51R45	0.091	2.3	0.177	4.5	51R93	0.197	5.0	0.197	5.0	51RE5	0.177	4.5	0.256	6.5
51R46	0.079	2.0	0.079	2.0	51R94	0.039	1.0	0.098	2.5	51RE6	0.047	1.2	0.059	1.5
51R47	0.098	2.5	0.118	3.0	51R95	0.217	5.5	0.276	7.0	51RE7	0.177	4.5	0.276	7.0
51R48	0.118	3.0	0.591	15.0	51R96	0.138	3.5	0.512	13.0	51RE8	0.157	4.0	0.374	9.5
51R49	0.138	3.5	0.118	3.0	51R97	0.138	3.5	0.394	10.0	51RE9	0.118	3.0	0.201	5.1
51R50	0.024	0.6	0.102	2.6	51R98	0.177	4.5	0.197	5.0	51RF1	0.118	3.0	0.362	9.2
51R51	0.020	0.5	0.315	8.0	51R99	0.177	4.5	0.236	6.0	51RF2	0.205	5.2	0.268	6.8
51R52	0.236	6.0	0.118	3.0	51RA1	0.236	6.0	0.098	2.5	51RF3	0.205	5.2	0.283	7.2
51R53	0.059	1.5	0.118	3.0	51RA2	0.236	6.0	0.591	15.0	51RF4	0.283	7.2	0.354	9.0
51R54	0.024	0.6	0.236	6.0	51RA3	0.138	3.5	0.315	8.0	51RF5	0.283	7.2	0.248	6.3
51R55	0.118	3.0	0.177	4.5	51RA4	0.315	8.0	0.315	8.0	51RF6	0.083	2.1	0.394	10.0
51R56	0.197	5.0	0.236	6.0	51RA5	0.138	3.5	0.630	16.0	51RF7	0.083	2.1	0.268	6.8
51R57	0.039	1.0	0.217	5.5	51RA6	0.315	8.0	0.394	10.0	51RF8	0.244	6.2	0.248	6.3
51R58	0.079	2.0	0.374	9.5	51RA7	0.098	2.5	0.472	12.0	51RF9	0.236	6.0	0.197	5.0
51R59	0.984	25.0	0.591	15.0	51RA8	0.059	1.5	0.130	3.3	51RG1	0.236	6.0	0.394	10.0

## FOF Gasket (Rectangle)

Rectangle														
P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)	
51RG2	0.433	11.0	0.394	10.0	51RN9	0.059	1.5	0.098	2.5	51RT7	0.047	1.2	0.197	5.0
51RG3	0.433	11.0	0.197	5.0	51RP1	0.039	1.0	0.220	5.6	51RT8	0.087	2.2	0.197	5.0
51RG4	0.020	0.5	0.197	5.0	51RP2	0.039	1.0	1.969	50.0	51RT9	0.039	1.0	0.201	5.1
51RG5	0.220	5.6	0.311	7.9	51RP3	0.236	6.0	0.472	12.0	51RV1	0.035	0.9	0.071	1.8
51RG6	0.075	1.9	0.476	12.1	51RP4	0.217	5.5	0.157	4.0	51RV2	0.051	1.3	0.091	2.3
51RG7	0.020	0.5	0.079	2.0	51RP5	0.787	20.0	0.591	15.0	51RV3	0.051	1.3	0.236	6.0
51RG8	0.012	0.3	0.370	9.4	51RP6	0.020	0.5	0.150	3.8	51RV4	0.016	0.4	0.201	5.1
51RG9	0.020	0.5	0.394	10.0	51RP7	0.039	1.0	0.246	6.3	51RV5	0.394	10.0	0.472	12.0
51RH1	0.866	22.0	0.591	15.0	51RP8	0.236	6.0	0.157	4.0	51RV6	0.315	8.0	0.472	12.0
51RH2	0.055	1.4	0.079	2.0	51RP9	0.472	12.0	0.315	8.0	51RV7	0.551	14.0	0.394	10.0
51RH3	0.157	4.0	0.236	6.0	51RQ1	0.012	0.3	0.118	3.0	51RV8	0.472	12.0	0.197	5.0
51RH4	0.079	2.0	0.591	15.0	51RQ2	0.217	5.5	0.394	10.0	51RV9	0.020	0.5	0.264	6.7
51RH5	0.236	6.0	0.315	8.0	51RQ3	0.024	0.6	0.315	8.0	51RW1	0.059	1.5	0.201	5.1
51RH6	0.087	2.2	0.098	2.5	51RQ4	0.087	2.2	0.116	3.0	51RW2	0.079	2.0	0.201	5.1
51RH7	0.063	1.6	0.157	4.0	51RQ5	0.063	1.6	0.071	1.8	51RW3	0.020	0.5	0.118	3.0
51RH8	0.236	6.0	0.236	6.0	51RQ6	0.087	2.2	0.071	1.8	51RW4	0.071	1.8	0.177	4.5
51RH9	0.472	12.0	0.591	15.0	51RQ7	0.039	1.0	0.591	15.0	51RW5	0.039	1.0	0.339	8.6
51RK1	0.022	0.6	0.551	14.0	51RQ8	0.276	7.0	0.394	10.0	51RW6	0.071	1.8	0.157	4.0
51RK2	0.039	1.0	0.354	9.0	51RQ9	0.709	18.0	0.394	10.0	51RW7	0.071	1.8	0.197	5.0
51RK3	0.591	15.0	0.394	10.0	51RR1	0.059	1.5	0.280	7.1	51RW8	0.201	5.1	0.201	5.1
51RK4	0.126	3.2	0.252	6.4	51RR2	0.091	2.3	0.661	16.8	51RW9	0.118	3.0	0.138	3.5
51RK5	0.039	1.0	0.709	18.0	51RR3	0.059	1.5	1.201	30.5	51RX1	0.039	1.0	0.157	4.0
51RK6	0.150	3.8	0.110	2.8	51RR4	0.173	4.4	0.449	11.4	51RX2	0.024	0.6	0.276	7.0
51RK7	0.472	12.0	0.472	12.0	51RR5	0.157	4.0	0.315	8.0	51RX3	0.063	1.6	0.079	2.0
51RK8	0.161	4.1	0.236	6.0	51RR6	0.177	4.5	0.394	10.0	51RX4	0.016	0.4	0.197	5.0
51RK9	0.098	2.5	0.236	6.0	51RR7	0.177	4.5	0.315	8.0	51RX5	0.059	1.5	0.354	9.0
51RM1	0.059	1.5	0.110	2.8	51RR8	0.098	2.5	0.315	8.0	51RX6	0.098	2.5	0.071	1.8
51RM2	0.087	2.2	0.177	4.5	51RR9	0.394	10.0	0.315	8.0	51RX7	0.079	2.0	0.063	1.6
51RM3	0.059	1.5	0.213	5.4	51RS1	0.354	9.0	0.394	10.0	51RX8	0.118	3.0	0.394	10.0
51RM4	0.059	1.5	0.079	2.0	51RS2	0.118	3.0	0.669	17.0	51RX9	0.051	1.3	0.217	5.5
51RM5	0.094	2.4	0.118	3.0	51RS3	0.118	3.0	0.630	16.0	51RY1	0.224	5.7	0.177	4.5
51RM6	0.020	0.5	1.024	26.0	51RS4	0.118	3.0	1.276	32.4	51RY2	0.047	1.2	0.157	4.0
51RM7	0.059	1.5	0.059	1.5	51RS5	0.118	3.0	0.953	24.2	51RY3	0.039	1.0	0.260	6.6
51RM8	0.012	0.3	0.181	4.6	51RS6	0.098	2.5	0.276	7.0	51RY4	0.150	3.8	0.500	12.7
51RM9	0.094	2.4	0.079	2.0	51RS7	0.039	1.0	0.256	6.5	51RY5	0.043	1.1	0.528	13.4
51RN1	0.157	4.0	0.354	9.0	51RS8	0.197	5.0	0.709	18.0	51RY6	0.433	11.0	0.236	6.0
51RN2	0.012	0.3	0.394	10.0	51RS9	0.079	2.0	0.630	16.0	51RY7	0.039	1.0	0.512	13.0
51RN3	0.236	6.0	0.354	9.0	51RT1	0.138	3.5	0.157	4.0	51RY8	0.130	3.3	0.189	4.8
51RN4	0.039	1.0	1.614	41.0	51RT2	0.276	7.0	0.098	2.5	51RY9	0.028	0.7	0.315	8.0
51RN5	0.047	1.2	0.866	22.0	51RT3	0.031	0.8	0.315	8.0	51RZ1	0.118	3.0	0.276	7.0
51RN6	0.098	2.5	0.268	6.8	51RT4	0.126	3.2	0.591	15.0	51RZ5	0.323	8.2	0.177	4.5
51RN7	0.472	12.0	0.177	4.5	51RT5	0.024	0.6	0.366	9.3	51RZ6	0.063	1.6	0.394	10.0
51RN8	0.197	5.0	0.472	12.0	51RT6	0.051	1.3	0.220	5.6	51RZ7	0.047	1.2	0.071	1.8

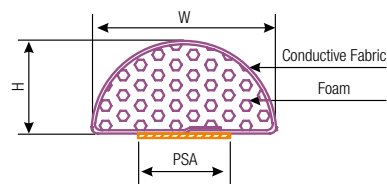
## Rectangular Series Sketch



## FOF Gasket (D-Shape)

D-shape														
P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)	
51D11	0.142	3.6	0.252	6.4	51D52	0.079	2.0	0.157	4.0	51D89	0.071	1.8	0.295	7.5
51D12	0.106	2.7	0.169	4.3	51D53	0.106	2.7	0.142	3.6	51D90	0.157	4.0	0.425	10.8
51D13	0.079	2.0	0.394	10.0	51D54	0.197	5.0	0.374	9.5	51D91	0.201	5.1	0.480	12.2
51D14	0.098	2.5	0.299	7.6	51D55	0.126	3.2	0.374	9.5	51D92	0.079	2.0	0.236	6.0
51D15	0.098	2.5	0.248	6.3	51D56	0.071	1.8	0.181	4.6	51D93	0.118	3.0	0.394	10.0
51D16	0.189	4.8	0.299	7.6	51D57	0.157	4.0	0.315	8.0	51D94	0.098	2.5	0.157	4.0
51D17	0.098	2.5	0.394	10.0	51D58	0.118	3.0	0.150	3.8	51D95	0.130	3.3	0.256	6.5
51D18	0.059	1.5	0.150	3.8	51D59	0.091	2.3	0.205	5.2	51D96	0.098	2.5	0.394	10.0
51D19	0.079	2.0	0.079	2.0	51D60	0.083	2.1	0.315	8.0	51D97	0.138	3.5	0.394	10.0
51D20	0.079	2.0	0.394	10.0	51D61	0.138	3.5	0.394	10.0	51D98	0.098	2.5	0.250	6.4
51D21	0.252	6.4	0.252	6.4	51D62	0.059	1.5	0.118	3.0	51D99	0.130	3.3	0.189	4.8
51D22	0.157	4.0	0.500	12.7	51D63	0.059	1.5	0.236	6.0	51DA1	0.200	5.1	0.394	10.0
51D23	0.091	2.3	0.150	3.8	51D64	0.118	3.0	0.354	9.0	51DA2	0.098	2.5	0.583	14.8
51D24	0.181	4.6	0.394	10.0	51D65	0.075	1.9	0.150	3.8	51DA3	0.079	2.0	0.118	3.0
51D25	0.217	5.5	0.409	10.4	51D66	0.118	3.0	0.118	3.0	51DA4	0.110	2.8	0.276	7.0
51D26	0.173	4.4	0.244	6.2	51D67	0.102	2.6	0.370	9.4	51DA5	0.059	1.5	0.177	4.5
51D27	0.059	1.5	0.315	8.0	51D68	0.118	3.0	0.358	9.1	51DA6	0.094	2.4	0.201	5.1
51D28	0.094	2.4	0.374	9.5	51D68	0.118	3.0	0.358	9.1	51DA7	0.118	3.0	0.500	12.7
51D29	0.079	2.0	0.142	3.6	51D69	0.087	2.2	0.299	7.6	51DA8	0.138	3.5	0.315	8.0
51D31	0.157	4.0	0.236	6.0	51D70	0.039	1.0	0.150	3.8	51DA9	0.059	1.5	0.394	10.0
51D32	0.079	2.0	0.315	8.0	51D71	0.150	3.8	0.150	3.8	51DA10	0.118	3.0	0.250	6.4
51D33	0.157	4.0	0.150	3.8	51D72	0.157	4.0	0.787	20.0	51DA11	0.098	2.5	0.315	8.0
51D34	0.079	2.0	0.276	7.0	51D73	0.079	2.0	0.500	12.7	51DA12	0.079	2.0	0.394	10.0
51D35	0.079	2.0	0.295	7.5	51D74	0.106	2.7	0.500	12.7	51DA13	0.150	3.8	0.354	9.0
51D36	0.118	3.0	0.472	12.0	51D75	0.150	3.8	0.500	12.7	51DA14	0.177	4.5	0.315	8.0
51D37	0.039	1.0	0.276	7.0	51D76	0.071	1.8	0.500	12.7	51DA15	0.197	5.0	0.315	8.0
51D38	0.079	2.0	0.394	10.0	51D77	0.098	2.5	0.500	12.7	51DA16	0.071	1.8	0.150	3.8
51D39	0.071	1.8	0.169	4.3	51D78	0.138	3.5	0.500	12.7	51DA17	0.250	6.4	0.250	6.4
51D40	0.118	3.0	0.335	8.5	51D79	0.157	4.0	0.591	15.0	51DA18	0.106	2.7	0.169	4.3
51D41	0.157	4.0	0.433	11.0	51D80	0.059	1.5	0.252	6.4	51DA19	0.118	3.0	0.394	10.0
51D42	0.118	3.0	0.315	8.0	51D81	0.118	3.0	0.394	10.0	51DA20	0.169	4.3	0.250	6.4
51D43	0.252	6.4	0.374	9.5	51D82	0.181	4.6	0.402	10.2	51DA21	0.374	9.5	0.500	12.7
51D44	0.079	2.0	0.370	9.4	51D83	0.070	1.8	0.394	10.0	51DA22	0.299	7.6	0.500	12.7
51D45	0.118	3.0	0.252	6.4	51D84	0.110	2.8	0.374	9.5	51DA23	0.110	2.8	0.224	5.7
51D47	0.039	1.0	0.394	10.0	51D85	0.201	5.1	0.252	6.4	51DA24	0.161	4.1	0.240	6.1
51D48	0.091	2.3	0.091	2.3	51D86	0.106	2.7	0.394	10.0	51DA25	0.161	4.1	0.250	6.4
51D49	0.102	2.6	0.177	4.5	51D87	0.157	4.0	0.394	10.0	51DA26	0.142	3.6	0.339	8.6
51D51	0.130	3.3	0.299	7.6	51D88	0.118	3.0	0.098	2.5					

## D-shaped Series Sketch

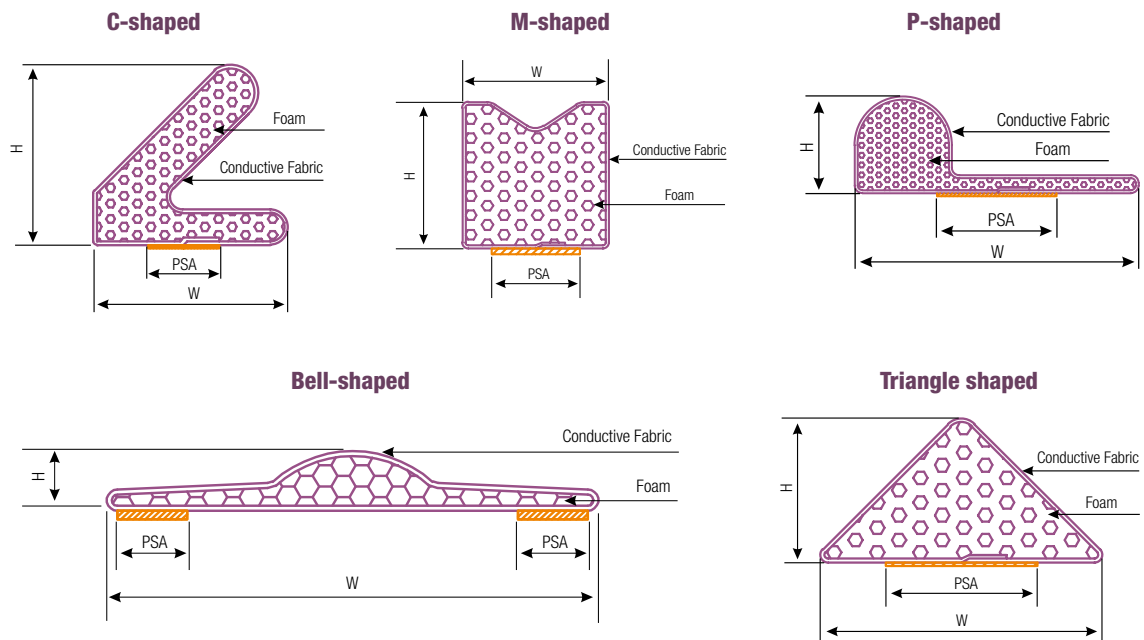




## FOF Gasket (C, P, M, Bell-Shape and Triangle Shape)

C, P, M-Shape				Bell-Shape				Triangle Shape						
P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)		P/N	H(inch : mm)		W(inch : mm)	
51C11	0.315	8.0	0.315	8.0	51K11	0.217	5.5	0.591	15.0	51T12	0.236	6.0	0.488	12.4
51C12	0.394	10.0	0.433	11.0	51K12	0.071	1.8	0.563	14.3	51T13	0.118	3.0	0.512	13.0
51C13	0.315	8.0	0.315	8.0	51K13	0.071	1.8	0.181	4.6	51T14	0.098	2.5	0.394	10.0
51C15	0.386	9.8	0.421	10.7	51K14	0.122	3.1	0.315	8.0	51T15	0.157	4.0	0.720	18.3
51C16	0.465	11.8	0.421	10.7	51K15	0.059	1.5	0.563	14.3	51T16	0.091	2.3	0.362	9.2
51C23	0.252	6.4	0.256	6.5	51K16	0.071	1.8	0.559	14.2	51T17	0.118	3.0	0.276	7.0
51C24	0.315	8.0	0.315	8.0	51K17	0.059	1.5	0.315	8.0	51T18	0.138	3.5	0.394	10.0
51C25	0.402	10.2	0.429	10.9	51K18	0.067	1.7	0.484	12.3	51T19	0.079	2.0	0.236	6.0
51C26	0.673	17.1	0.591	15.0	51K19	0.157	4.0	0.500	12.7	51T20	0.094	2.4	0.299	7.6
<b>P-Shape</b>					51K20	0.071	1.8	0.181	4.6	51T21	0.110	2.8	0.618	15.7
51P11	0.118	3.0	0.492	12.5	51K21	0.098	2.5	0.299	7.6	51T22	0.039	1.0	0.374	9.5
51P12	0.276	7.0	0.433	11.0	51K22	0.098	2.5	0.394	10.0	51T23	0.098	2.5	0.394	10.0
51P13	0.173	4.4	0.646	16.4	51K23	0.087	2.2	0.181	4.6	51T24	0.098	2.5	0.374	9.5
51P14	0.118	3.0	0.520	13.2	51K24	0.138	3.5	0.315	8.0	51T25	0.059	1.5	0.394	10.0
<b>M-Shape</b>					51K25	0.130	3.3	0.394	10.0	51T26	0.118	3.0	0.319	8.1
51M11	0.394	10.0	0.394	10.0	51K26	0.079	2.0	0.299	7.6	51T27	0.098	2.5	0.394	10.0
51M12	0.374	9.5	0.500	12.7	51K27	0.181	4.6	0.551	14.0	51T28	0.157	4.0	0.394	10.0
										51T29	0.063	1.6	0.197	5.0
										51T30	0.079	2.0	0.315	8.0
										51T31	0.110	2.8	0.319	8.1
										51T32	0.091	2.3	0.250	6.4
										51T33	0.126	3.2	0.250	6.4
										51T34	0.091	2.3	0.500	12.7
										51T35	0.126	3.2	0.500	12.7

### C-shaped, M-shaped, P-shaped, Bell-shaped and Triangle shaped Series Sketch



## FOF Gasket (I/O and Others)

I/O																				
P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)	P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)	P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)									
5IH11	0.039	1.0	1.339	34.0	6.055	153.8	51H58	0.059	1.5	1.732	44.0	6.299	160.0	51HA7	0.157	4.0	0.787	20.0	0.906	23.0
5IH12	0.079	2.0	1.102	28.0	6.299	160.0	51H58A	0.079	2.0	1.398	35.5	5.118	130.0	51HA8	0.079	2.0	2.953	75.0	10.000	254.0
5IH13	0.197	5.0	0.787	20.0	1.024	26.0	51H60	0.039	1.0	3.378	85.8	8.976	228.0	51HA9	0.079	2.0	1.772	45.0	1.378	35.0
5IH14	0.059	1.5	0.748	19.0	1.339	34.0	51H61	0.059	1.5	1.772	45.0	6.102	155.0	51HB1	0.039	1.0	0.591	15.0	2.165	55.0
5IH15	0.039	1.0	0.689	17.5	6.417	163.0	51H62	0.039	1.0	0.551	14.0	2.559	65.0	51HB2	0.079	2.0	1.359	34.5	5.874	149.2
5IH16	0.079	2.0	1.063	27.0	1.181	30.0	51H63	0.079	2.0	0.535	13.6	2.197	55.8	51HB3	0.157	4.0	0.236	6.0	0.236	6.0
5IH17	0.039	1.0	0.512	13.0	2.138	54.3	51H64	0.098	2.5	1.693	43.0	4.825	122.6	51HB4	0.039	1.0	2.953	75.0	10.000	254.0
5IH18	0.031	0.8	0.709	18.0	2.795	71.0	51H65	0.079	2.0	0.866	22.0	5.118	130.0	51HB5	0.079	2.0	0.551	14.0	0.945	24.0
5IH19	0.031	0.8	0.551	14.0	1.457	37.0	51H66	0.118	3.0	2.244	57.0	4.528	115.0	51HB6	0.039	1.0	0.748	19.0	1.319	33.5
5IH20	0.059	1.5	1.772	45.0	6.220	158.0	51H67	0.079	2.0	0.736	18.7	1.713	43.5	51HB7	0.118	3.0	0.630	16.0	1.827	46.4
5IH21	0.079	2.0	0.669	17.0	0.866	22.0	51H68	0.079	2.0	0.665	16.9	1.378	35.0	51HB8	0.039	1.0	0.638	16.2	1.319	33.5
5IH22	0.039	1.0	0.394	10.0	15.323	389.2	51H69	0.039	1.0	0.669	17.0	1.398	35.5	51HB9	0.079	2.0	0.787	20.0	2.854	72.5
5IH23	0.039	1.0	0.394	10.0	6.646	168.8	51H70	0.079	2.0	1.063	27.0	1.236	31.4	51HC1	0.039	1.0	3.378	85.8	8.937	227.0
5IH24	0.059	1.5	0.748	19.0	1.949	49.5	51H71	0.079	2.0	0.551	14.0	2.205	56.0	51HC2	0.157	4.0	0.630	16.0	0.945	24.0
5IH25	0.157	4.0	0.866	22.0	0.866	22.0	51H72	0.157	4.0	0.630	16.0	0.984	25.0	51HC3	0.118	3.0	0.579	14.7	1.807	45.9
5IH26	0.079	2.0	0.591	15.0	7.874	200.0	51H73	0.079	2.0	1.102	28.0	5.862	148.9	51HC4	0.079	2.0	0.551	14.0	1.890	48.0
5IH27	0.059	1.5	1.772	45.0	5.984	152.0	51H74	0.079	2.0	0.709	18.0	2.205	56.0	51HC5	0.157	4.0	0.315	8.0	0.315	8.0
5IH28	0.118	3.0	1.362	34.6	6.358	161.5	51H75	0.120	3.1	1.689	42.9	6.270	159.3	51HC6	0.039	1.0	0.713	18.1	3.902	99.1
5IH29	0.118	3.0	0.886	22.5	5.807	147.5	51H76	0.079	2.0	0.957	24.3	1.902	48.3	51HC7	0.039	1.0	0.394	10.0	1.260	32.0
5IH35	0.039	1.0	1.417	36.0	5.512	140.0	51H77	0.039	1.0	1.343	34.1	5.583	141.8	51HC8	0.039	1.0	0.669	17.0	4.055	103.0
5IH30	0.079	2.0	1.654	42.0	4.882	124.0	51H78	0.079	2.0	0.984	25.0	18.976	482.0	51HC9	0.079	2.0	0.591	15.0	2.283	58.0
5IH31	0.059	1.5	1.850	47.0	6.102	155.0	51H79	0.039	1.0	0.394	10.0	8.268	210.0	51HD1	0.039	1.0	1.811	46.0	2.874	73.0
5IH32	0.250	6.4	1.598	40.6	2.000	50.8	51H80	0.039	1.0	0.394	10.0	1.752	44.5	51HD2	0.079	2.0	0.433	11.0	0.709	18.0
5IH33	0.079	2.0	1.181	30.0	0.945	24.0	51H81	0.039	1.0	0.394	10.0	2.421	61.5	51HD3	0.059	1.5	0.811	20.6	2.720	69.1
5IH34	0.039	1.0	0.630	16.0	1.575	40.0	51H82	0.039	1.0	0.394	10.0	6.929	176.0	51HD4	0.059	1.5	0.587	14.9	3.465	88.0
5IH36	0.039	1.0	3.370	85.6	8.937	227.0	51H83	0.039	1.0	0.394	10.0	2.441	62.0	51HD5	0.354	9.0	0.354	9.0	12.795	325.0
5IH37	0.039	1.0	0.516	13.1	0.902	22.9	51H84	0.039	1.0	0.276	7.0	0.709	18.0	51HD6	0.354	9.0	0.354	9.0	16.654	423.0
5IH38	0.039	1.0	0.843	21.4	2.913	74.0	51H85	0.197	5.0	0.846	21.5	0.665	16.9	51HD7	0.098	2.5	1.669	42.4	5.839	148.3
5IH39	0.098	2.5	0.646	16.4	1.031	26.2	51H86	0.079	2.0	0.764	19.4	3.492	88.7	51HD8	0.039	1.0	1.803	45.8	8.374	212.7
5IH40	0.079	2.0	1.654	42.0	4.882	124.0	51H87	0.079	2.0	0.764	19.4	1.957	49.7	51HD9	0.394	10.0	0.591	15.0	7.874	200.0
5IH41	0.276	7.0	2.372	60.3	6.559	166.6	51H88	0.079	2.0	0.787	20.0	1.197	30.4	51HE1	0.039	1.0	0.328	8.3	1.071	27.2
5IH42	0.079	2.0	0.618	15.7	1.004	25.5	51H89	0.157	4.0	0.472	12.0	0.709	18.0	51HE2	0.394	10.0	0.591	15.0	8.268	210.0
5IH43	0.079	2.0	0.807	20.5	3.819	97.0	51H90	0.039	1.0	1.575	40.0	15.535	394.6	51HE3	0.059	1.5	1.138	28.9	3.492	88.7
5IH44	0.079	2.0	0.752	19.1	2.787	70.8	51H91	0.079	2.0	0.661	16.8	0.693	17.6	51HE4	0.079	2.0	0.807	20.5	0.768	19.5
5IH45	0.039	1.0	0.315	8.0	2.047	52.0	51H92	0.028	0.7	2.953	75.0	10.000	254.0	51HE5	0.079	2.0	1.024	26.0	4.567	116.0
5IH46	0.197	5.0	0.197	5.0	4.441	112.8	51H94	0.079	2.0	1.732	44.0	9.606	244.0	51HE6	0.079	2.0	1.220	31.0	10.827	275.0
5IH47	0.020	0.5	0.787	20.0	3.740	95.0	51H95	0.118	3.0	0.787	20.0	1.024	26.0	51HE7	0.079	2.0	2.421	61.5	6.890	175.0
5IH48	0.039	1.0	1.575	40.0	16.260	413.0	51H96	0.079	2.0	0.984	25.0	0.591	15.0	51HE8	0.079	2.0	2.835	72.0	5.504	139.8
5IH49	0.157	4.0	0.650	16.5	0.984	25.0	51H97	0.039	1.0	0.630	16.0	2.559	65.0	51HE9	0.039	1.0	0.752	19.1	1.319	33.5
5IH50	0.079	2.0	2.323	59.0	8.819	224.0	51H98	0.039	1.0	0.689	17.5	0.394	10.0	51HF1	0.118	3.0	1.457	37.0	6.102	155.0
5IH51	0.094	2.4	0.929	23.6	1.220	31.0	51H99	0.079	2.0	1.417	36.0	5.157	131.0	51HF2	0.039	1.0	0.689	17.5	0.728	18.5
5IH52	0.059	1.5	1.654	42.0	6.220	158.0	51HA1	0.039	1.0	0.559	14.2	3.000	76.2	51HF3	0.079	2.0	1.402	35.6	4.331	110.0
5IH53	0.177	4.5	1.339	34.0	1.181	30.0	51HA2	0.059	1.5	0.752	19.1	1.319	33.5	51HF4	0.118	3.0	0.709	18.0	1.083	27.5
5IH54	0.079	2.0	2.323	59.0	8.815	223.9	51HA3	0.039	1.0	0.984	25.0	0.591	15.0	51HF5	0.039	1.0	0.791	20.1	1.177	29.9
5IH55	0.059	1.5	1.594	40.5	3.906	99.2	51HA4	0.236	6.0	0.630	16.0	11.220	285.0	51HF6	0.039	1.0	0.276	7.0	2.283	58.0
5IH56	0.157	4.0	0.709	18.0	0.945	24.0	51HA5	0.079	2.0	0.535	13.6	2.197	55.8	51HF7	0.039	1.0	0.902	22.9	0.516	13.1
5IH57	0.118	3.0	1.604	40.8	7.864	199.8	51HA6	0.118	3.0	0.630	16.0	0.984	25.0	51HF8	0.059	1.5	1.343	34.1	5.583	141.8

## FOF Gasket (I/O and Others)

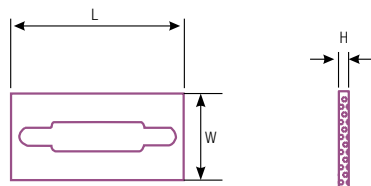
I/O																				
P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)	P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)	P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)									
51HF9	0.039	1.0	0.579	14.7	1.909	48.5	51HN2	0.079	2.0	1.575	40.0	6.102	155.0	51HT4	0.134	3.4	1.181	30.0	14.150	359.4
51HG1	0.079	2.0	0.315	8.0	51.181	1300.0	51HN3	0.039	1.0	0.394	10.0	1.496	38.0	51HT5	0.118	3.0	1.402	35.6	2.189	55.6
51HG2	0.118	3.0	1.402	35.6	4.331	110.0	51HN4	0.098	2.5	0.406	10.3	4.252	108.0	51HT6	0.039	1.0	0.433	11.0	1.181	30.0
51HG3	0.098	2.5	0.587	14.9	3.465	88.0	51HN5	0.098	2.5	0.406	10.3	3.252	82.6	51HT7	0.079	2.0	0.492	12.5	2.756	70.0
51HG4	0.030	0.8	0.606	15.4	1.083	27.5	51HN6	0.098	2.5	0.406	10.3	8.752	222.3	51HT9	0.039	1.0	0.768	19.5	0.866	22.0
51HG5	0.197	5.0	1.031	26.2	3.409	86.6	51HN7	0.098	2.5	0.406	10.3	14.000	355.6	51HV1	0.039	1.0	0.610	15.5	1.378	35.0
51HG6	0.039	1.0	0.831	21.1	1.969	50.0	51HN8	0.098	2.5	0.406	10.3	16.000	406.4	51HV2	0.126	3.2	1.244	31.6	1.831	46.5
51HG7	0.039	1.0	0.394	10.0	17.323	440.0	51HN9	0.098	2.5	1.811	46.0	5.098	129.5	51HV3	0.039	1.0	1.811	46.0	2.677	68.0
51HG8	0.039	1.0	0.394	10.0	21.654	550.0	51HP1	0.098	2.5	1.811	46.0	3.031	77.0	51HV4	0.039	1.0	1.220	31.0	2.661	67.6
51HG9	0.039	1.0	0.394	10.0	4.488	114.0	51HP2	0.079	2.0	0.594	15.1	2.697	68.5	51HV5	0.039	1.0	0.630	16.0	1.457	37.0
51HH1	0.059	1.5	1.295	32.9	7.630	193.8	51HP3	0.079	2.0	0.276	7.0	5.299	134.6	51HV6	0.039	1.0	1.693	43.0	4.961	126.0
51HH2	0.051	1.3	0.843	21.4	2.913	74.0	51HP4	0.079	2.0	0.315	8.0	5.799	147.3	51HV7	0.118	3.0	0.610	15.5	1.827	46.4
51HH3	0.197	5.0	1.260	32.0	2.047	52.0	51HP5	0.079	2.0	0.315	8.0	7.091	180.1	51HV8	0.236	6.0	0.547	13.9	0.976	24.8
51HH4	0.079	2.0	0.740	18.8	2.370	60.2	51HP6	0.098	2.5	1.614	41.0	3.031	77.0	51HV9	0.079	2.0	1.693	43.0	3.425	87.0
51HH5	0.157	4.0	0.571	14.5	2.028	51.5	51HP7	0.236	6.0	0.547	13.9	0.976	24.8	51HW1	0.252	6.4	0.650	16.5	8.681	220.5
51HH6	0.020	0.5	0.197	5.0	11.752	298.5	51HP8	0.059	1.5	0.831	21.1	0.752	19.1	51HW2	0.252	6.4	0.650	16.5	9.598	243.8
51HH7	0.059	1.5	0.787	20.0	0.846	21.5	51HP9	0.118	3.0	0.709	18.0	1.890	48.0	51HW3	0.039	1.0	2.516	63.9	1.386	35.2
51HH8	0.118	3.0	0.787	20.0	0.489	12.4	51HQ1	0.118	3.0	1.504	38.2	5.906	150.0	51HW4	0.106	2.7	0.319	8.1	10.988	279.1
51HH9	0.039	1.0	1.339	34.0	3.543	90.0	51HQ2	0.079	2.0	1.732	44.0	12.587	319.7	51HW5	0.098	2.5	0.510	13.0	2.835	72.0
51HJ1	0.079	2.0	1.575	40.0	6.102	155.0	51HQ3	0.039	1.0	0.630	16.0	1.457	37.0	51HW6	0.102	2.6	0.276	7.0	20.000	508.0
51HJ2	0.039	1.0	0.335	8.5	11.102	282.0	51HQ4	0.079	2.0	0.602	15.3	2.697	68.5	51HW7	0.106	2.7	0.315	8.0	17.346	440.6
51HJ3	0.079	2.0	1.850	47.0	6.102	155.0	51HQ5	0.039	1.0	0.874	22.2	0.870	22.1	51HW8	0.079	2.0	0.118	3.0	0.618	15.7
51HJ4	0.059	1.5	0.335	8.5	11.102	282.0	51HQ6	0.118	3.0	0.654	16.6	0.996	25.3	51HW9	0.031	0.8	1.811	46.0	9.110	231.4
51HJ5	0.059	1.5	0.886	22.5	6.283	159.6	51HQ7	0.039	1.0	0.748	19.0	0.748	19.0	51HX1	0.069	1.8	1.669	42.4	5.839	148.3
51HJ6	0.079	2.0	0.591	15.0	2.697	68.5	51HQ8	0.039	1.0	1.417	36.0	3.037	77.2	51HX2	0.039	1.0	0.701	17.8	7.760	197.1
51HJ7	0.118	3.0	1.496	38.0	6.240	158.5	51HQ9	0.059	1.5	0.315	8.0	17.205	437.0	51HX3	0.039	1.0	0.701	17.8	15.862	402.9
51HJ8	0.079	2.0	1.575	40.0	6.102	155.0	51HR1	0.039	1.0	0.866	22.0	4.882	124.0	51HX4	0.079	2.0	0.780	19.8	2.409	61.2
51HJ9	0.118	3.0	1.673	42.5	1.630	41.4	51HR2	0.039	1.0	0.630	16.0	2.933	74.5	51HX5	0.039	1.0	0.512	13.0	8.000	203.2
51HK1	0.118	3.0	0.933	23.7	6.324	160.6	51HR3	0.079	2.0	1.732	44.0	3.504	89.0	51HX6	0.039	1.0	0.315	8.0	4.724	120.0
51HK2	0.098	2.5	1.669	42.4	5.839	148.3	51HR4	0.079	2.0	1.693	43.0	5.787	147.0	51HX7	0.039	1.0	1.280	32.5	6.370	161.8
51HK3	0.020	0.5	1.272	32.3	7.087	180.0	51HR5	0.039	1.0	0.492	12.5	1.575	40.0	51HX8	0.039	1.0	0.276	7.0	1.693	43.0
51HK4	0.079	2.0	1.181	30.0	2.480	63.0	51HR6	0.079	2.0	2.913	74.0	2.923	74.3	51HX9	0.039	1.0	0.276	7.0	1.693	43.0
51HK5	0.039	1.0	1.291	32.8	4.409	112.0	51HR7	0.157	4.0	0.551	14.0	2.205	56.0	51HY1	0.118	3.0	1.043	26.5	3.189	81.0
51HK6	0.098	2.5	0.394	10.0	1.181	30.0	51HR8	0.039	1.0	0.433	11.0	1.181	30.0	51HY2	0.039	1.0	0.539	13.7	1.307	33.2
51HK7	0.157	4.0	0.630	16.0	1.063	27.0	51HR9	0.079	2.0	0.787	20.0	16.850	428.0	51HY3	0.039	1.0	1.028	26.1	1.181	30.0
51HK8	0.157	4.0	0.709	18.0	1.181	30.0	51HS1	0.079	2.0	0.787	20.0	1.732	44.0	51HY4	0.039	1.0	0.866	22.0	1.378	35.0
51HK9	0.059	1.5	1.201	30.5	0.650	16.5	51HS2	0.039	1.0	0.630	16.0	1.575	40.0	51HY5	0.039	1.0	1.378	35.0	2.500	63.5
51HM1	0.039	1.0	1.583	40.2	6.083	154.5	51HS3	0.039	1.0	0.591	15.0	0.984	25.0	51HY6	0.386	9.8	0.500	12.7	20.339	516.6
51HM2	0.118	3.0	0.630	16.0	0.945	24.0	51HS4	0.039	1.0	0.665	16.9	1.339	34.0	51HY7	0.386	9.8	0.500	12.7	41.583	1056.2
51HM3	0.079	2.0	0.594	15.1	2.697	68.5	51HS5	0.020	0.5	0.394	10.0	16.378	416.0	51HY8	0.386	9.8	0.500	12.7	67.803	1722.2
51HM4	0.039	1.0	0.591	15.0	2.165	55.0	51HS6	0.157	4.0	0.551	14.0	17.441	443.0	51HY9	0.079	2.0	0.724	18.4	2.843	72.2
51HM5	0.118	3.0	0.630	16.0	1.890	48.0	51HS7	0.079	2.0	1.732	44.0	3.504	89.0	51HZ1	0.079	2.0	0.787	20.0	5.354	136.0
51HM6	0.039	1.0	0.669	17.0	0.521	13.2	51HS8	0.069	1.8	0.484	12.3	N/A	N/A	51HZ2	0.110	2.8	0.551	14.0	17.441	443.0
51HM7	0.071	1.8	0.559	14.2	0.559	14.2	51HS9	0.157	4.0	0.551	14.0	2.205	56.0	51HZ3	0.039	1.0	0.571	14.5	2.500	63.5
51HM8	0.039	1.0	0.929	23.6	2.396	60.9	51HT1	0.079	2.0	0.787	20.0	16.850	428.0	51HZ4	0.039	1.0	1.260	32.0	2.665	67.7
51HM9	0.039	1.0	0.929	23.6	1.890	48.0	51HT2	0.039	1.0	0.827	21.0	4.646	118.0	51HZ5	0.079	2.0	1.614	41.0	2.906	73.8
51HN1	0.118	3.0	0.591	15.0	0.969	24.6	51HT3	0.039	1.0	0.551	14.0	1.378	35.0	51HZ6	0.020	0.5	1.043	26.5	3.189	81.0

## FOF Gasket (I/O and Custom)

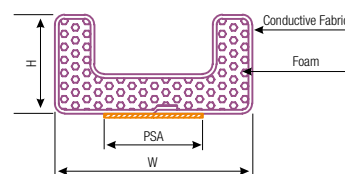
I/O						Custom					
P/N	H(inch:mm)	W(inch:mm)	L(inch:mm)	P/N	H(inch : mm)	W(inch : mm)	P/N	H(inch : mm)	W(inch : mm)		
51HZ7	0.079	2.0	1.142 29.0 4.972 126.3	51Q11	0.201	5.1 0.413 10.5	51Q41	0.079	2.0 0.500 12.7		
51HZ8	0.039	1.0	1.035 26.3 1.854 47.1	51Q12	0.346	8.8 0.685 17.4	51Q42	0.146	3.7 0.256 6.5		
51HZ9	0.039	1.0	0.618 15.7 0.854 21.7	51Q13	0.106	2.7 0.445 11.3	51Q43	0.059	1.5 0.256 6.5		
51H100	0.079	2.0	0.642 16.3 14.291 363.0	51Q14	0.157	4.0 0.386 9.8	51Q44	0.197	5.0 0.673 17.1		
51H101	0.079	2.0	1.669 42.4 5.839 148.3	51Q15	0.118	3.0 0.220 5.6	51Q45	0.091	2.3 0.394 10.0		
51H102	0.059	1.5	1.248 31.7 1.866 47.4	51Q16	0.118	3.0 0.382 9.7	51Q46	0.098	2.5 0.394 10.0		
51H103	0.039	1.0	0.768 19.5 3.898 99.0	51Q17	0.205	5.2 0.287 7.3	51Q47	0.177	4.5 0.433 11.0		
51H104	0.039	1.0	0.614 15.6 0.772 19.6	51Q18	0.205	5.2 0.303 7.7	51Q48	0.315	8.0 0.472 12.0		
51H105	0.126	3.2	1.260 32.0 14.150 359.4	51Q19	0.283	7.2 0.374 9.5	51Q49	0.079	2.0 0.394 10.0		
51H106	0.126	3.2	1.250 31.8 1.831 46.5	51Q20	0.283	7.2 0.268 6.8	51Q50	0.118	3.0 0.394 10.0		
51H107	0.118	3.0	1.516 38.5 1.516 38.5	51Q21	0.083	2.1 0.413 10.5	51Q51	0.098	2.5 0.248 6.3		
51H108	0.047	1.2	1.516 38.5 1.516 38.5	51Q22	0.083	2.1 0.287 7.3	51Q52	0.122	3.1 0.256 6.5		
51H109	0.079	2.0	0.157 4.0 4.921 125.0	51Q23	0.244	6.2 0.268 6.8	51Q53	0.102	2.6 0.197 5.0		
51H110	0.039	1.0	0.276 7.0 4.843 123.0	51Q24	0.220	5.6 0.331 8.4	51Q54	0.098	2.5 0.157 4.0		
51H111	0.079	2.0	1.063 27.0 5.862 148.9	51Q25	0.276	7.0 0.295 7.5	51Q55	0.236	6.0 0.244 6.2		
51H112	0.118	3.0	0.630 16.0 4.724 120.0	51Q26	0.118	3.0 0.394 10.0	51Q56	0.098	2.5 0.319 8.1		
51H113	0.386	9.8	0.421 10.7 1.969 50.0	51Q27	0.185	4.7 0.197 5.0	51Q57	0.087	2.2 0.118 3.0		
51H114	0.433	11.0	0.079 2.0 0.709 18.0	51Q28	0.354	9.0 0.157 4.0	51Q58	0.118	3.0 0.197 5.0		
51H115	0.079	2.0	0.902 22.9 8.000 203.2	51Q29	0.276	7.0 0.236 6.0	51Q59	0.110	2.8 0.197 5.0		
51H116	0.118	3.0	0.315 8.0 10.043 255.1	51Q30	0.217	5.5 0.177 4.5	51Q60	0.138	3.5 0.157 4.0		
51H117	0.079	2.0	0.630 16.0 0.984 25.0	51Q31	0.110	2.8 0.382 9.7	51Q61	0.091	2.3 0.500 12.7		
51H118	0.079	2.0	0.598 15.2 11.953 303.6	51Q32	0.118	3.0 0.319 8.1	51Q62	0.079	2.0 0.295 7.5		
51H119	0.039	1.0	0.756 19.2 10.039 255.0	51Q33	0.138	3.5 0.315 8.0	51Q63	0.079	2.0 0.500 12.7		
51H120	0.126	3.2	0.591 15.0 15.748 400.0	51Q34	0.098	2.5 0.374 9.5	51Q64	0.079	2.0 0.354 9.0		
51H121	0.098	2.5	1.043 26.5 3.189 81.0	51Q35	0.110	2.8 0.618 15.7	51Q65	0.098	2.5 0.406 10.3		
51H122	0.110	2.8	0.354 9.0 17.441 443.0	51Q36	0.106	2.7 0.445 11.3	51Q66	0.209	5.3 0.130 3.3		
51H123	0.039	1.0	2.413 61.3 4.961 126.0	51Q37	0.150	3.8 0.150 3.8	51Q67	0.154	3.9 0.236 6.0		
51H124	0.039	1.0	0.831 21.1 1.969 50.0	51Q38	0.138	3.5 0.374 9.5	51Q68	0.094	2.4 0.354 9.0		
51H125	0.039	1.0	0.433 11.0 1.181 30.0	51Q39	0.142	3.6 0.500 12.7	51Q69	0.138	3.5 0.315 8.0		
				51Q40	0.098	2.5 0.299 7.6	51Q70	0.091	2.3 0.827 21.0		

### I/O and Others Series Sketch

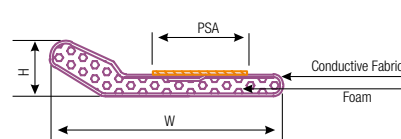
#### I/O Series Sketch



#### Concave B



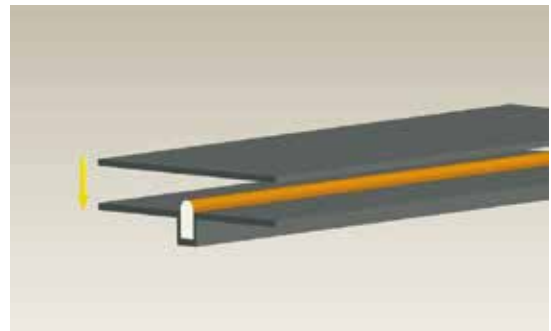
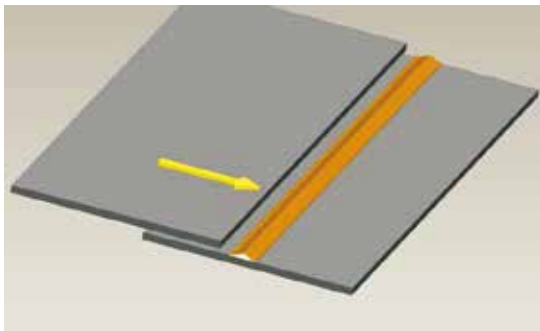
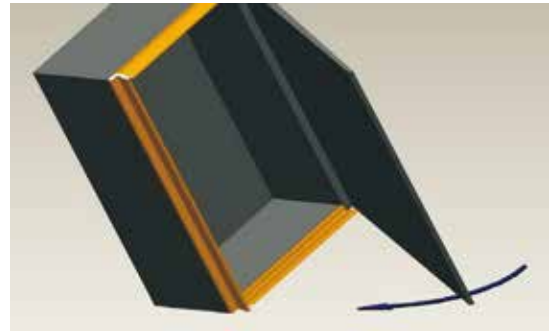
#### Knife-shaped



If the directory listed in the content of conductive foam still can not meet your needs, please contact our engineers, we can design and manufacture according to your needs.

## The Application of FOF Gaskets

### FoF Application of Different Cross-Section Virtual Reality Images



### The Actual Assembly Effect Picture (Pro/E)



## Conductive Tape Series

FRD conductive tape series include Copper-foil tape, Aluminum-foil tape, and conductive fabric tape.

Conductive tapes are widely used in devices such as equipments, components, ESD grounding, and EMI shielding, especially in the mobile communication equipments. They are applied to the cell phone for shielding and to its LCD screen and keyboard for purposes of adhesion, fixing, ESD and conductive grounding. They can also be applied to PCB board for fixed grounding and adhesion, and to the built-in antenna interface shielding and bonding fixing.

The FRD conductive tapes, with excellent performance, are the ideal substitutes for some well-known brands. They currently have been largely used by customers.



## >> Conductive Foam

Material Type	Material	Nominal Thickness (mm)	Surface Resistivity ( $\Omega/\square$ )	Volume Resistivity ( $\Omega/\square$ )	Shielding At 100MHz/1GHz (dB)	Application
52S03	CF+Cu+CPSA	0.30	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S05	CF+Cu+CPSA	0.50	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S08	CF+Cu+CPSA	0.80	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S10	CF+Cu+CPSA	1.00	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S15	CF+Cu+CPSA	1.50	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S20	CF+Cu+CPSA	2.00	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S25	CF+Cu+CPSA	2.50	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S30	CF+Cu+CPSA	3.00	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S35	CF+Cu+CPSA	3.50	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S40	CF+Cu+CPSA	4.00	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52S45	CF+Cu+CPSA	4.50	$\leq 0.20$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q03	CF+CPSA	0.30	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q05	CF+CPSA	0.50	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q10	CF+CPSA	1.00	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q15	CF+CPSA	1.50	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q20	CF+CPSA	2.00	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q25	CF+CPSA	2.50	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q30	CF+CPSA	3.00	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q35	CF+CPSA	3.50	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding
52Q40	CF+CPSA	4.00	$\leq 0.20$	$\leq 0.10$	$\geq 80$	Conductive, Grounding, EMI Shielding

## Conductive Tape Series

### >> Conductive Fabric Tape

Material Type	Material	Nominal Thickness (mm)	Surface Resistivity ( $\Omega/\square$ )	Volume Resistivity ( $\Omega/\square$ )	Shielding At 100MHz/1GHz (dB)	Application
53B014	Conductive Fabric +CPSA	0.140	$\leq 0.10$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B003	Conductive Fabric +CPSA	0.030	$\leq 0.10$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B005	Conductive Fabric +CPSA	0.050	$\leq 0.10$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B010	Conductive Fabric +CPSA	0.100	$\leq 0.10$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
55B0025	Conductive Fabric +CPSA	0.025	$\leq 0.10$	$\leq 0.05$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B005A	CPSA+Conductive Fabric +CPSA	0.050	$\leq 0.10$	$\leq 0.06$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B010A	CPSA+Conductive Fabric +CPSA	0.100	$\leq 0.10$	$\leq 0.06$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B015A	CPSA+Conductive Fabric +CPSA	0.150	$\leq 0.10$	$\leq 0.06$	$\geq 80$	Conductive, Grounding, EMI Shielding
54B020A	CPSA+Conductive Fabric +CPSA	0.200	$\leq 0.10$	$\leq 0.06$	$\geq 80$	Conductive, Grounding, EMI Shielding
55B003A	CPSA+Conductive Fabric +CPSA	0.030	$\leq 0.10$	$\leq 0.06$	$\geq 80$	Conductive, Grounding, EMI Shielding

### >> Cu Foil Tape

Material Type	Material	Nominal Thickness (mm)	Surface Resistivity ( $\Omega/\square$ )	Volume Resistivity ( $\Omega/\square$ )	Shielding At 100MHz/1GHz (dB)	Application
56B005	Cu Foil+CPSA	0.05	$\leq 0.03$	$\leq 0.06$	$\geq 80$	Conductive, EMI Shielding, Heat Dissipation
56B010	Cu Foil+CPSA	0.10	$\leq 0.03$	$\leq 0.06$	$\geq 80$	Conductive, EMI Shielding, Heat Dissipation
56C005	Cu Foil+PSA	0.05	$\leq 0.03$	N/A	N/A	Heat Dissipation
56C010	Cu Foil+PSA	0.10	$\leq 0.03$	N/A	N/A	Heat Dissipation

### >> Al Foil Tape

Material Type	Material	Nominal Thickness (mm)	Surface Resistivity ( $\Omega/\square$ )	Volume Resistivity ( $\Omega/\square$ )	Shielding At 100MHz/1GHz (dB)	Application
57B005	Al Foil+CPSA	0.05	$\leq 0.03$	$\leq 0.06$	$\geq 80$	Conductive, EMI Shielding, Heat Dissipation
57B010	Al Foil+CPSA	0.10	$\leq 0.03$	$\leq 0.06$	$\geq 80$	Conductive, EMI Shielding, Heat Dissipation
57C004	Al Foil+PSA	0.04	$\leq 0.03$	N/A	N/A	Heat Dissipation
57C009	Al Foil+PSA	0.09	$\leq 0.03$	N/A	N/A	Heat Dissipation



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0802-V2.3-Yang  
A small green recycling symbol consisting of three chasing arrows forming a triangle.