



Fabric-Over-Foam Product Catalogue (A0)

(Passed IATF16949:2016 quality management system and ISO9001:2015 dual certification enterprise)



Fabric-Over-Foam of EMIS has many outstanding performances.

1. Good Cushioning and Compression Resistance.
2. Excellent Durability and Wear Resistance.
3. Good Environmental and Chemical Resistance.
4. Excellent EMI/RFI Shielding Performance.
5. Can provide both thermal and electrical pathways, aiding in heat dissipation or grounding.
6. Wide variety of fabrics allows for tailored solutions based on performance needs.
7. All Products(including Plating)Can Fulfil SGS.ROHS.REACH etc ,Environmental Requirements.

■ Don't hesitate to contact me if have any questions. **E-mail: sales@emis-tech.com**

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Web Site: www.emis-tech.com ; Factory address: Ground Floor Building A Hongpengfei Industrial Park GuanLan Town Shenzhen ,China Mobile Phone:+086-13509683160; TEL: +086-0755-28056465; TEL: +086-0755-28058096;

E-Mail: sales@emis-tech.com

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One.The definition of Fabric-Over-Foam

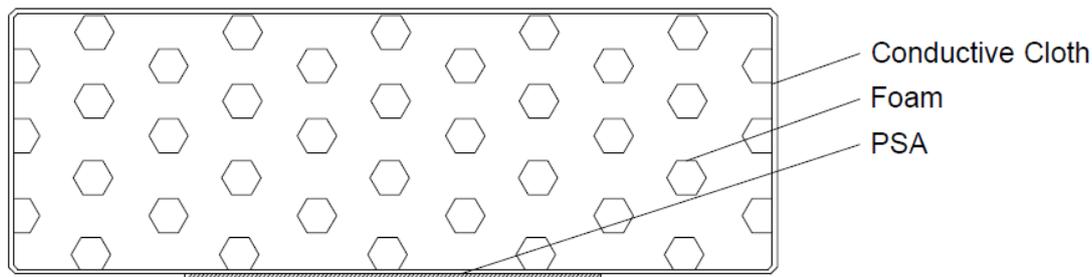
Plating the nickel plated cloth that is made of polyester fiber with oxidation-resistant and anti-corrosion nickel after being plated with copper of high conductivity. The combination of copper and nickel provides perfect conductivity and electromagnetic shielding.

Fabric-Over-Foam is made up of foam which is wrapped up by conductive fabric. Hot melt adhesive set between conductive fabric and foam glues the conductive fabric and foam together. Conductive adhesive is set on the outside of conductive fabric to fix the conductive fabric and foam.

The advantages of utility models **Fabric-Over-Foam**: the combination of Fabric-Over-Foam and conductive fabric decreases the contact electricity between them. Besides, being convenient and solid it lowers the production cost and makes a better electromagnetic shielding effect.

Fabric-Over-Foam gasket, as a kind of shielding material for gaps with high performance-to-price ratio is used in the gaps in metal cases or other equipment to provide impedance electrical connection. Conductive fabric of high conductivity and anti-corrosion with high-elastic PU foam wrapped in it is used to make conductive gasket through precision machining. With prefect electromagnetic wave shielding effect, Fabric-Over-Foam gaskets can be processed into different shapes and sizes and be widely used in the prophylaxis and treatment of EMI/EMC of all kinds of electronics.

Fabric-Over-Foam Diagram:



Two. Fabric-Over-Foam Classification

1. D shape Fabric-Over-Foam (D);
2. Rectangle shape Fabric-Over-Foam (R);
3. Triangle shape Fabric-Over-Foam (T);
4. C shape Fabric-Over-Foam(C);
5. I/O shape Fabric-Over-Foam;
6. Plating Au Fabric-Over-Foam;
7. All aspects Fabric-Over-Foam.

Three. Fabric-Over-Foam Advantages

1. The shielding effectiveness > 100dB within the frequency is 20 MHz--10GHz;
2. Wear resistance low and less than 0.07 Ohm/square;
3. Good wear resistance,frequently use and shielding effectiveness is not affected;
4. It can work well within a wide temperature range (-35°C---70°C);
5. Very soft, suitable for the occasion can not provide greater pressure;
6. Low price, it is very good shielding material;
7. Having good fire resistance and being certificated by UL to UL94 or UL94HB;
8. The electrochemistry compatibility between substrates can be guaranteed in a large scale by appropriate cladding materials;
9. Excellent design can provide the clients with a best option for assembly;
10. Installation is simple and diverse, suitable for paste, slot;
11. Product adhesion ROHS, Halogen-free, REACH, UL94-V0 requirements in general.

Four. The Characteristics of Fabric-Over-Foam

Properties	Units	Value	Advantages
Electrical property	Typically in the range of 0.05 to 0.10 ohms/square, providing a good conductive path for shielding		
Shielding efficiency	DB	> 80	High shielding effectiveness
Surface impedance	Ohm/square	< 0.05	Ultra-low-impedance
Mechanical property	A low compression set (e.g., <10%) indicates good resilience, essential for repeated use in gasketing applications		
Wear resistance	Times	1,000,000	Strong wear resistance to ensure that the use of one million times, there will not be significantly decreased shielding performance
Compression set		< 15%	To ensure long-term reliable performance
Compression forces	Lbs/in	1-5	Low compression force can maintain close contact between the joints.
Flammability		UL94-V0	Providing a variety of flame-retardant grades of products to chose from
ROHS(SGS)		Passed	All products are environmentally friendly
Halogen-Free		Passed	To provide halogen-free products
Service temperature	°C	-40 ---70	

Five. Applications of Fabric-Over-Foam

Widely used in Television; LCD; Mobile phones; Laptop PC; Desktop PC; PDA; MP4; Communications cabinets; Medical devices and other electronic products.

Six. Part Number System Of Fabric-Over-Foam

SX – ABBCC - DEFG

Code instructions :

S: Stand for EMIS Company

X: FOF types:

F: Fabric-Over-Foam; C: conductive cloth.

A: Stand for shape:

R: Rectangle shape; C: C shape; T: Triangle shape; D: D shape; I : I/O shape ; S: Other shape.

BB: Section length; CC: Section width.

D: Cloth types:

G: line ripple conductive cloth ; P: Flat ripple conductive cloth; B: Black conductive cloth; A: Aluminum foil conductive cloth ; C: Other types.

E: The type of foam filled :

N: PU foam ; H: High-density foam ; L: low-density foam ; A: All-wave conductive foam; C: Compressed conductive foam; E: Other types.

F: Paste tape types:

N: No tape; M: Ordinary tape; C: Conductive tape; E: Other type tape.

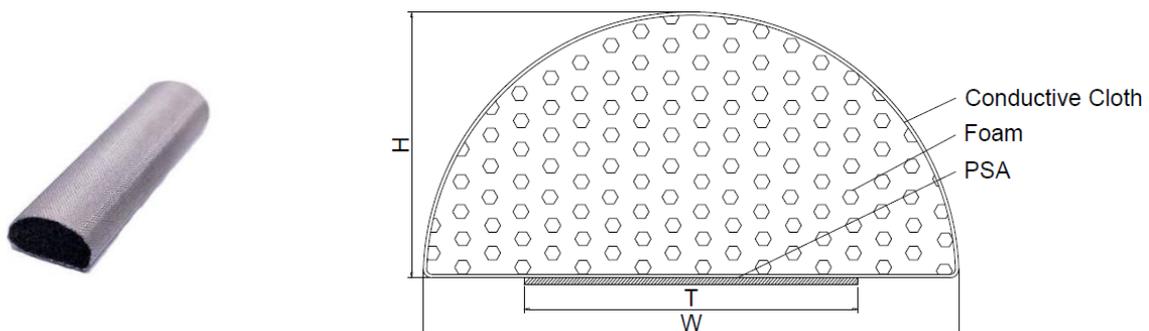
G: Drawing Version: V0---V9.

Seven. Production Processes of Fabric-Over-Foam:

Received order --- Check customer P/N --- Check EMIS P/N --- Prepare for raw materials --- Production preparation --- Forming shape --- Taping--- Cutting--- Full inspection---Package.

Eight. Production Diagrams & Dimension:

1) D shape Fabric-Over-Foam (D)



Units : MM

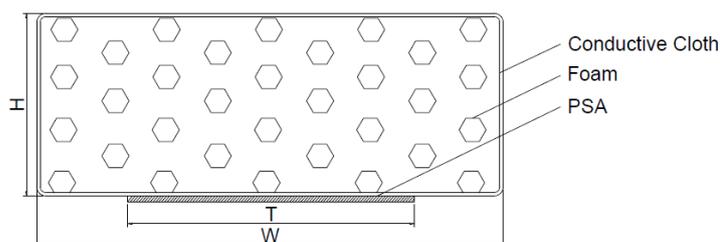
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Tape : 3M9469 or Conductive tape

Part P/N	W	H	T	Part P/N	W	H	T
SF-D0301-GNM0	3	1	2	SF-D1004-GNM0	10	4	8
SF-D0402-GNM0	4	2	2.5	SF-D1005-GNM0	10	5	8
SF-D0502-GNM0	5	2	3.5	SF-D1205-GNM0	12	5	10
SF-D0302-GNM0	3.6	1.8	2.5	SF-D1306-GNM0	13	6	11
SF-D0603-GNM0	6	3	4.7	SF-D1406-GNM0	14	6	12
SF-D0703-GNM0	7	3	5	SF-D1405-GNM0	14	5	12
SF-D0735-GNM0	7	3.5	6	SF-D1806-GNM0	18	6	15
SF-D0803-GNM0	8	3	6.3	SF-D2008-GNM0	20	8	17
SF-D0804-GNM0	8	4	6.3	SF-D2010-GNM0	20	10	17

Notes: For other specifications or requirements, please free contact us

2)Rectangle shape Fabric-Over-Foam (R)



Units : MM

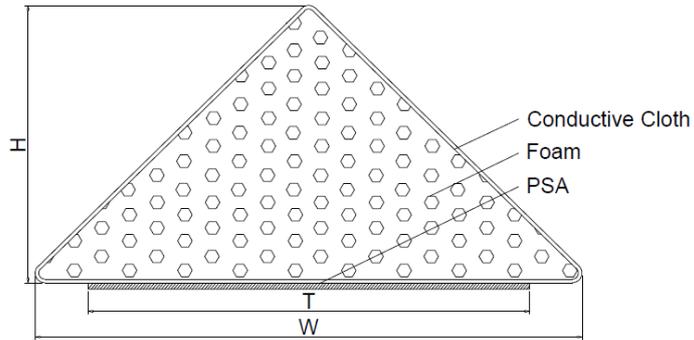
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Tape : 3M9469 or Conductive tape

Part P/N	W	H	T	Part P/N	W	H	T
SF-R0401-GNM0	4	1	3	SF-R1005-GNM0	10	5	8
SF-R0402-GNM0	4	2	3	SF-R1006-GNM0	10	6	8
SF-R0502-GNM0	5	3	3.7	SF-R1206-GNM0	12	6	10
SF-R0604-GNM0	6	4	4.7	SF-R1407-GNM0	14	7	13
SF-R0603-GNM0	6	3	4.7	SF-R1408-GNM0	14	8	13
SF-R0704-GNM0	7	4	5	SF-R1805-GNM0	18	5	16
SF-R0805-GNM0	8	5	6	SF-R1806-GNM0	18	6	16
SF-R0804-GNM0	8	4	6.3	SF-R2008-GNM0	20	8	18
SF-R0803-GNM0	8	3	6.3	SF-R2013-GNM0	20	13	18

Notes: For other specifications or requirements, please contact us

3)Triangle shape Fabric-Over-Foam (T)



Units : MM

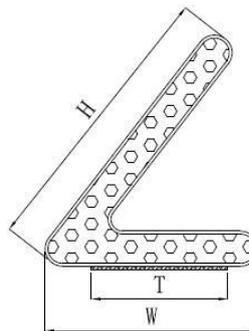
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Tape:3M9469 or Conductive tape

Part P/N	W	H	T	Part P/N	W	H	T
SF-T0301-GNM0	3	1	2.5	SF-T1004-GNM0	10	4	8
SF-T0402-GNM0	4	2	3	SF-T1003-GNM0	10	3	8
SF-T0401-GNM0	4	1	3.7	SF-T1106-GNM0	11	6	10
SF-T0502-GNM0	5	2	4.7	SF-T1105-GNM0	11	5	10
SF-T0602-GNM0	6	2	4.7	SF-T1508-GNM0	15	8	13
SF-T0603-GNM0	6	3	4.7	SF-T1506-GNM0	15	6	13
SF-T0604-GNM0	6	4	4.7	SF-T1806-GNM0	18	6	16
SF-T0804-GNM0	8	4	6.3	SF-T2009-GNM0	20	9	18
SF-T0802-GNM0	8	2	6.3	SF-T2011-GNM0	20	11	18

Notes: For other specifications or requirements, please contact us.

4) C shape Fabric-Over-Foam (C)



Units : MM

Lmax=2000MM

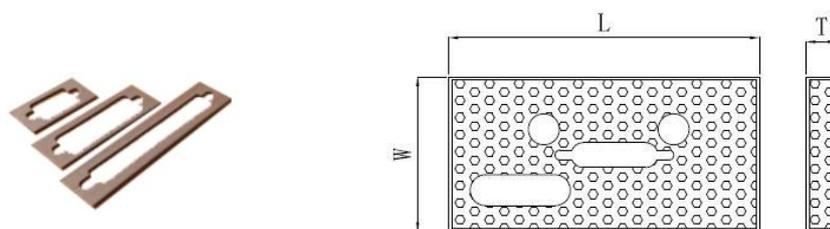
Tape : 3M9469 or Conductive tape

Part P/N	W	H	T	Part P/N	W	H	T
SF-C0402-GNM0	4	2	3.5	SF-C1005-GNM0	10	5	8
SF-C0403GNM0	4	3	3.5	SF-C1006-GNM0	10	6	8
SF-C0504-GNM0	5	4	4.7	SF-C1209-GNM0	12	9	10

SF-C0503-GNM0	5	3	4.7	SF-C1306-GNM0	13	6	11
SF-C0605-GNM0	6	5	5.5	SF-C1509-GNM0	15	9	13
SF-C0604-GNM0	6	4	5.5	SF-C1606-GNM0	16	6	14
SF-C0806-GNM0	8	6	6.3	SF-C1808-GNM0	18	8	16
SF-C0807-GNM0	8	7	6.3	SF-C2010-GNM0	20	10	18
SF-C0906-GNM0	9	6	8	SF-T2011-GNM0	20	11	18

Notes: For other specifications or requirements, please contact us.

5) I/O shape Fabric-Over-Foam (I/O)

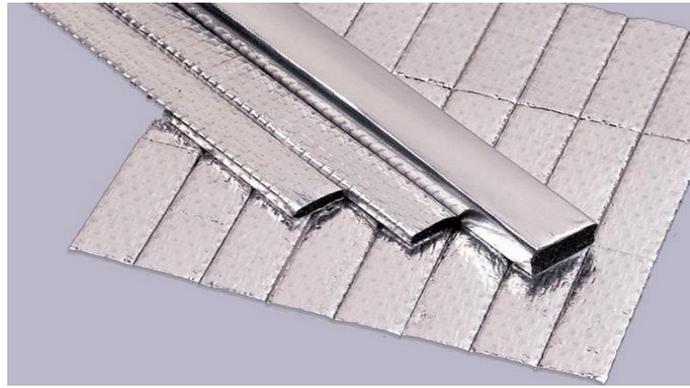


Part P/N	W	H	T	Part P/N	W	H	T
SF-I1005-GNM0	10	5	0.5	SF-I1109-GNM0	11	9	1.0
SF-I1006-GNM0	10	6	0.5	SF-I1209-GNM0	12	9	1.0
SF-I1008-GNM0	10	8	0.5	SF-I1211-GNM0	12	11	1.0
SF-I1009-GNM0	10	9	1.0	SF-I1308-GNM0	13	8	1.0
SF-I1108-GNM0	11	8	1.0	SF-I2510-GNM0	25	10	1.5
SF-I1109-GNM0	11	9	1.0	SF-I3022-GNM0	30	22	1.5
SF-I1007-GNM0	10	7	0.8	SF-I4025-GNM0	40	25	1.5
SF-I1006-GNM0	10	6	0.8	SF-I5028-GNM0	50	28	2.0
SF-I1107-GNM0	11	7	0.8	SF-T8040-GNM0	80	40	2.0

Notes: For other specifications or requirements, please contact us.

6) Aluminum foil Fabric-Over-Foam

Aluminum foil cloth which is recombined by soft and pure aluminum foil and fiberglass is chosen to take the place of conductive fabric to wrap anti-flaming foam with surface impedance less than 0.016Ω . It has good shielding properties with heat resistance of 130°C . A lower production cost can relieve the pressure of product costs. With a shielding property over 100dB, high elasticity and perfect performance, aluminum foil foam can lower the electrical impedance of the contract surface, be resistant to corrosion and improve the consistency of the assembly metal coatings by connectors.



7) Plating Gold Fabric-Over-foam

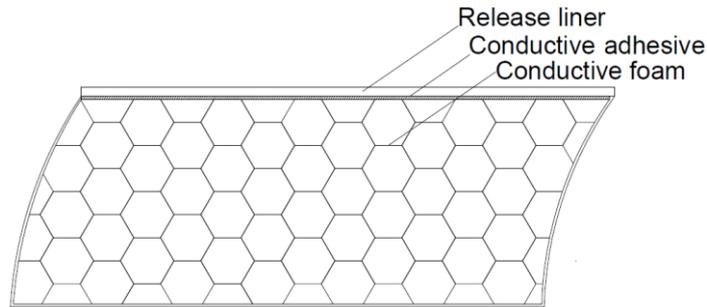
After being disposed, anti-foaming foam which is wrapped by gold plating conductive fabric has a perfect surface conductivity and can be fixed easily on needed blockers by adhesive tapes, There are different tail sectional shapes, installation methods, UL levels and shielding materials of different shielding effectiveness to choose from.



8)All waves Fabric-Over-Foam :

As a new kind of shielding material, All waves Fabric-Over-Foam is a tri-axial electric conducting material that is made by electroplated PU foam. The shielding effectiveness is better than that of traditional foams, which meets the need of the ever-increasing shielding effectiveness of computers and communication equipment. Conductive foam is very fit for the shielding of the input and output interfaces and the seams. The structure of conductive foam can be divided into four layers: the first layer is polyester fabric. the second layer is PU foam. the third layer is polyester fabric and the last layer is pressure sensitive adhesive.

9)The structure drawing



Nine.Tolerance Standard :

1. I/O: Height.Width.Length: $\pm 0.5\text{mm}$;
2. Profile: Height & Width: $\pm 0.5\text{mm}$;
3. 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: $\pm 3.0\text{mm}$.

Ten. How to order conductive foam?

- a. Complete product drawing.
- b. Offering samples.
- c. Choosing standard product from our product summary.
- d. Offering similar products and making appropriate changes.
- e. As for the unmarked adhesive tapes, we put forward specification requirements and the clients can make a choice on this basis.
- f. If the clients do not give their requirements for conductive fabric, we will manufacture the general conductive fabric.

Company profile:

SHENZHEN EMIS ELECTRON MATERIALS LTD.,CO established in November 8th, 2006, is a high-tech factory specialized in the production of metal Electromagnetic Shielding (EMS) materials, with more than 15 years experience in professional production. The company's fixed assets (RMB) amounts up to 1 USD million; factory workshop: 1000 square meters; production equipment: precision outline; puncher:30 sets; vacuum heat treatment furnace (value:80 thousand USD): a set. All kinds of mold processing equipment and product testing equipment: hundreds of sets. Employees: over 80 people (R&D:3people,mold technician:6; quality controller: 6).



Main products:

1. Beryllium copper fingerstock and gasket. BeCu SMD Spring. Beryllium copper Springs. Shielding room shielding strips & SUS Spring.
2. R&D and production of a full range of fabric-over-foam (conductive foam);
3. Design and manufacture of shielding knitting mesh and shielding honeycomb panel.
4. Design and manufacture of conductive copper foil, conductive rubber, ferrite and shielding glasses;
5. All kinds of materials precision stamping parts and toolings;
6. Other types of electronic materials;

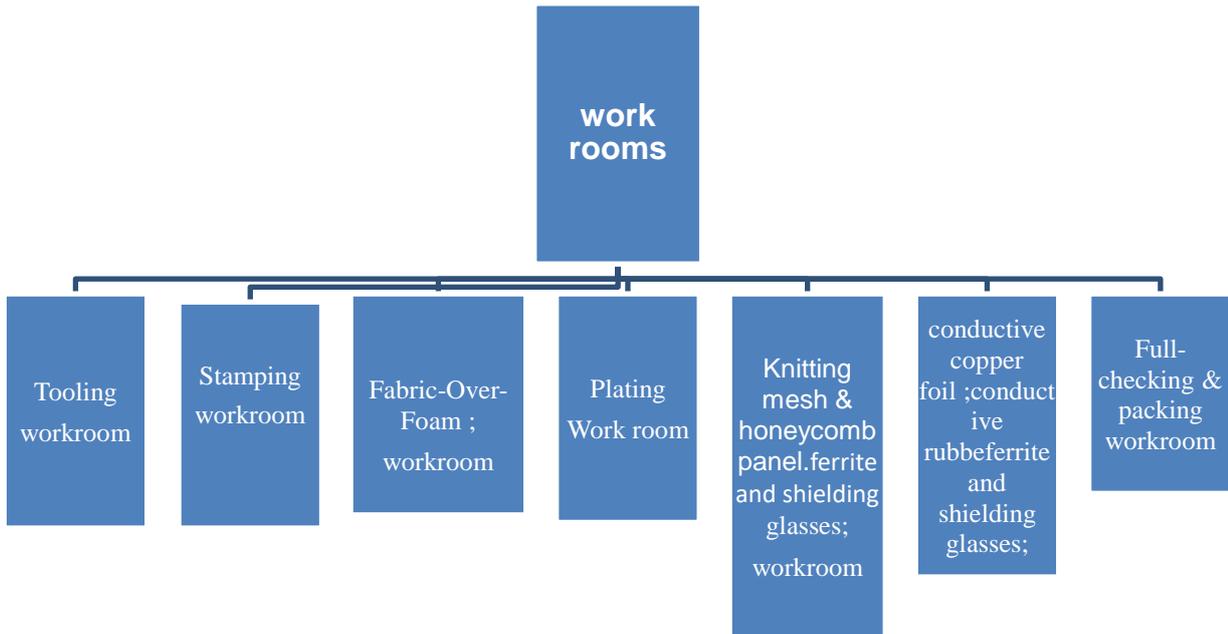
In 2008, the company had passed the ISO9001 quality certification system, and all production products meet the EU environmental requirements;

Keeping innovating: let us develop mutually

Win-win cooperation: let us make progress together

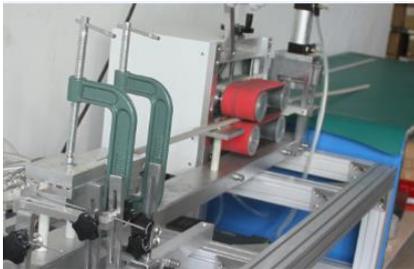
EMIS company is always by your side and we together with you move towards a better future. ShenZhen EMIS Electronic Materials Co., Ltd, with excellent quality and quick delivery and preferential price, can make constant supplies to customers!

1)Workrooms Structure:



2) Fabric-Over-Foam Workroom

The main production of various types of standard and non-standard fabric-over-foam. Imported forming machine 5 sets. The production capacity 30,000 per day.



Forming Machine 1



Forming Machine 2



The Slicing Machine



Die-cutting Machine



Rewinding Slitting Machine



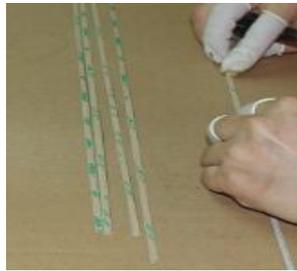
Reel Machine

3) Full-checking & Package Room

Full checking the product according to normal visual inspection and the better packaging, inspection by FQC qualified shipment.



Full-checking 1



Full-checking 2



Full-checking 3

4) Quality Department



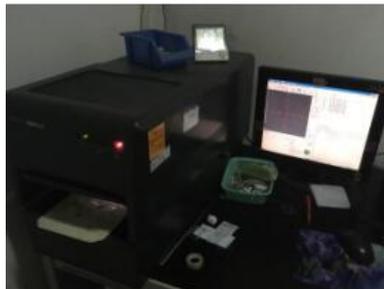
Quality Checking Room



Hardness Tester



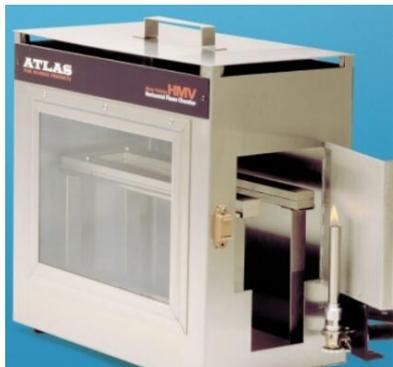
Projector Instrument



X-Ray Thickness Meter



Salt Spray Test Machine meter



ATLAS Preventing Combustion Tester



FT-300A Resistance Testing Instrument

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Any questions, pls contact us E-Mail: sales@emis-tech.com