

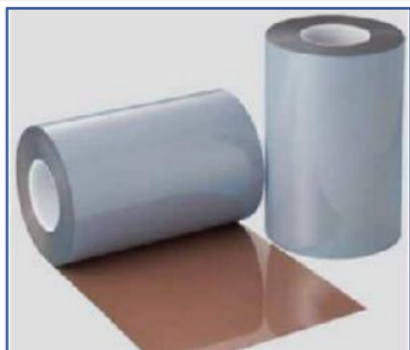
Product Presentation

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Electromagnetic shielding materials use **polymer** as the carrier, **and metal coating**(three-layer structure design of nickel-copper-nickel to absorb, reflect and attenuate the intrusion of external electromagnetic energy, or limit the electromagnetic energy radiated by equipment to a certain area, so as to **achieve the function of electromagnetic shielding**



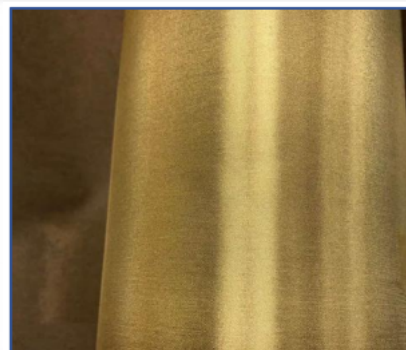
Conductive fabric



Electromagnetic shielding film



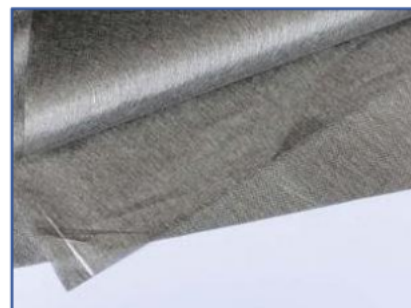
Nano silver fiber fabric



Gold-plated material



Conductive sponge material



Conductive non-woven fabric



Plating of metals on PET film



Copper foil nickel plating



Aluminum-coated copper foil



Wire mesh for grounding

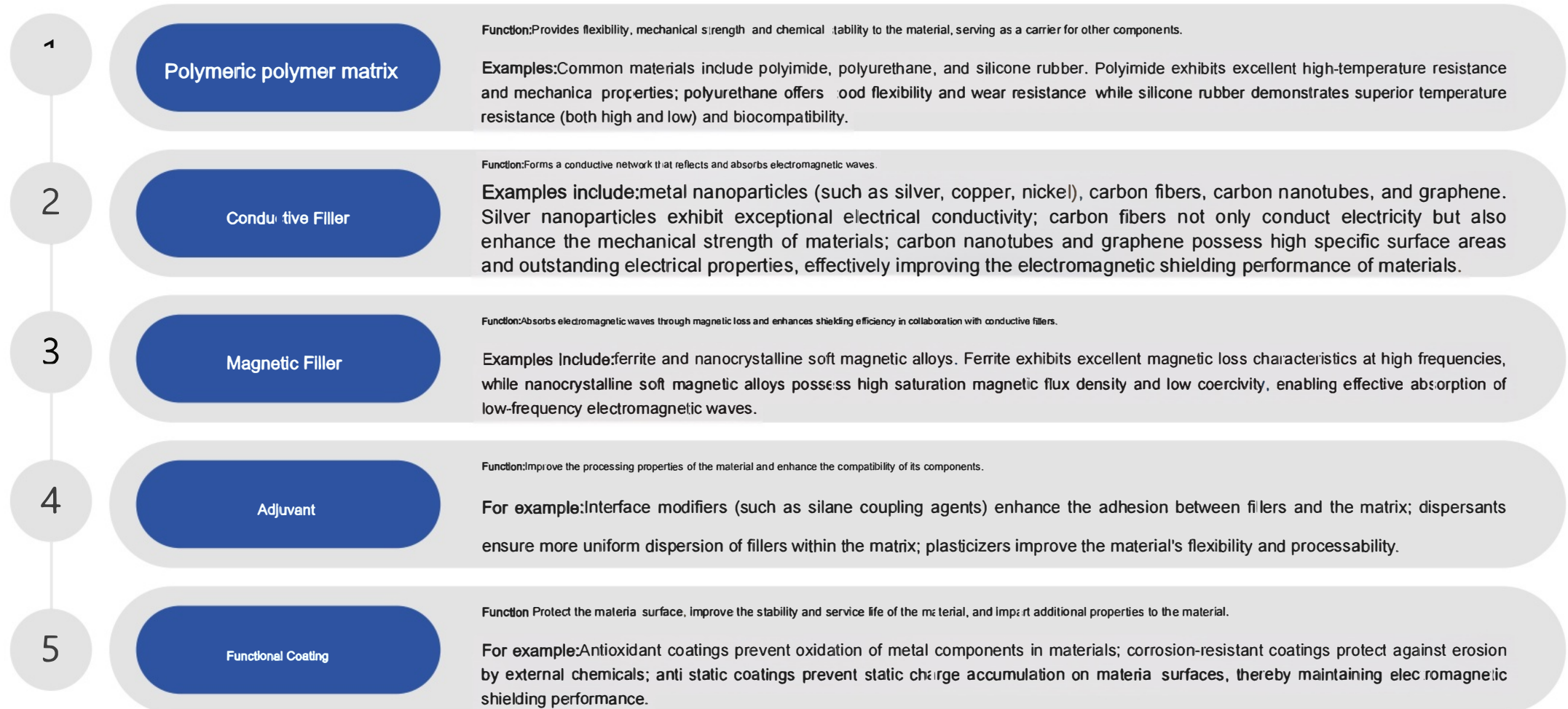
Advanced Product Technology

Large format, excellent conductivity, wide bandwidth, and strong shielding—key performance metrics leading internationally.

Parameter	International Indicator	Domestic Indicator	Expectation Indicator	Comparison Conclusion
Thickness	15± 3 μm	16± 3 μm	15± 3 μm	International level is flat
Width	1.5 m	1.2 m	★ 1.6 m	Superior to international standards
Conduction	≤0.05Ω	< 0.1Ω	★≤0.02Ω	Superior to international standards
Insulation resistance	> 5MΩ	> 5MΩ	> 5MΩ	International level is flat
Shielding Energy Efficiency	Frequency range: 30 MHz to 10 GHz;>75 dB	Frequency range: 30 MHz–10 GHz;>70 dB	★Frequency range: 30 MHz to 10 GHz; attenuation>80 dB	Superior to international standards
Bending Flexibility	No significant stratification observed after 100,000 applications; shielding efficacy remains above 90%.	Slightly stratified after over 100,000 applications, with shielding efficiency maintained above 90%.	No significant stratification observed after 100,000 applications; shielding efficacy remains above 90%.	International level is flat
Temperature tolerance	At 300°C 30-second non-destructive failure	No failure observed after 30 seconds at 260°C	At 300°C 30-second non-destructive failure	International level is flat
Environmental suitability	After 60 days of exposure to salt spray, high humidity, and extreme temperatures (-100°C to 200°C), the electromagnetic shielding performance remains above 80%.	After 60 days of exposure to salt spray, high humidity, and extreme temperatures (-100°C to 200°C), the electromagnetic shielding performance remained at 60%.	After 60 days of exposure to salt spray, high humidity, and extreme temperatures (-100°C to 200°C), the electromagnetic shielding performance remains above 80%.	International level is flat

Product Presentation

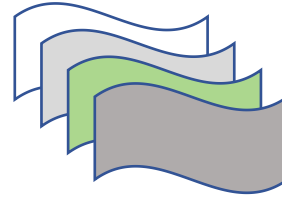
➤ High-end soft electromagnetic shielding material



Conductive Fabric



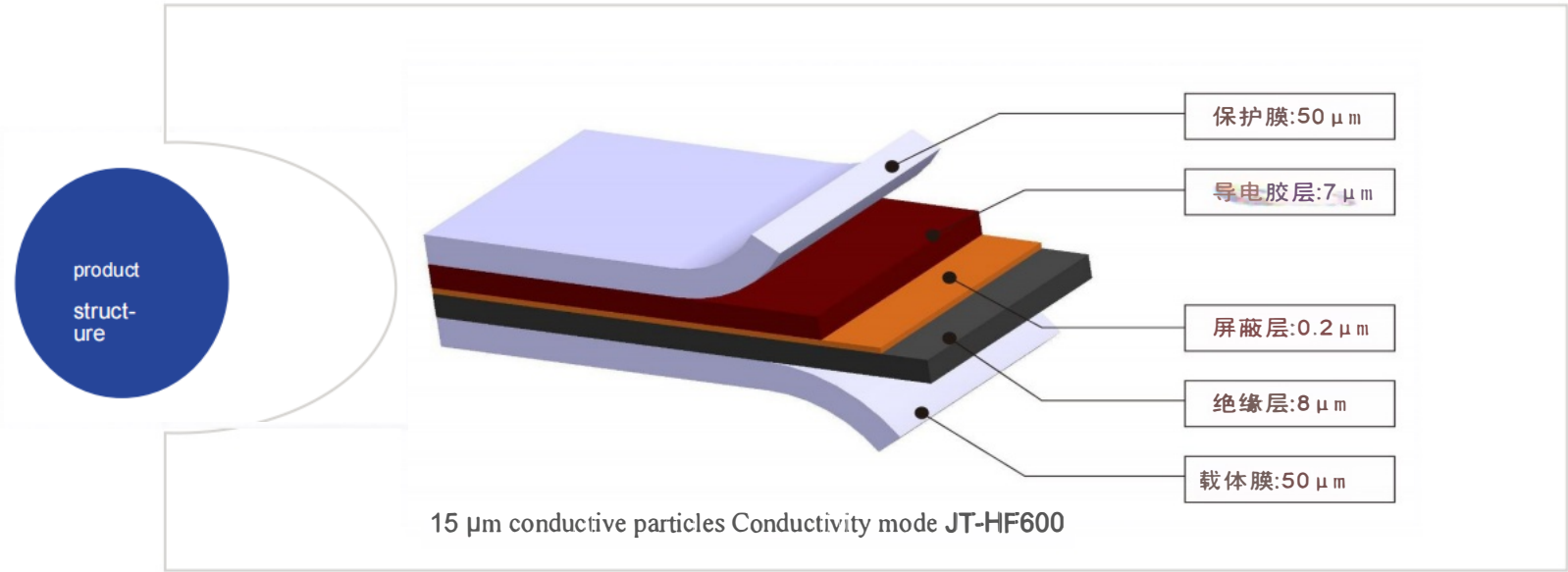
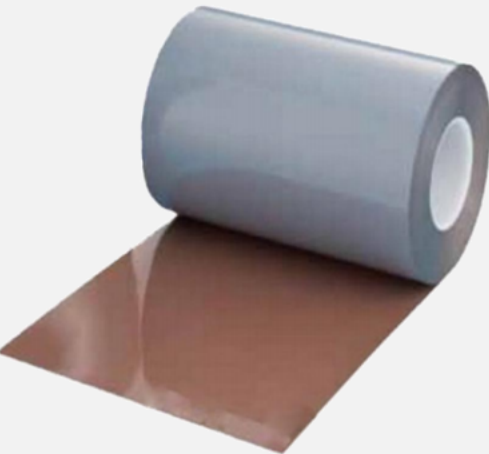
pr-
oduct
mix



1— Polyester
fiber 2— Pre-
coating 3—
Copper metal
4— Nickel
metal

- ✓ **Shielding:** Average shielding effectiveness ≥ 60 dB (frequency range: 10 MHz–3 GHz); surface resistivity < 50 m Ω
- ✓ **Gentle:** Compared to common metal shielding devices, it is easy to carry and use
- ✓ **Anti-folding:** The shielding performance remains unchanged after 2,000 cycles of folding and unfolding storage.
- ✓ **Heat shock resistance:** Rinsed at 288°C for 10 seconds per rinse, repeated 5 times; no bubbling or separation observed
- ✓ **Solvent Resistance:** At room temperature, dip a dust-free cloth in the solvent and wipe the product with the appropriate pressure used during assembly production.
- ✓ After 20 repeated wiping cycles and drying, the appearance showed no discoloration.
- ✓ **Characteristics:** Flexible, thin, magnetic, conductive, easy to process

Electromagnetic Shielding Film



Characteristics	Organization	Test results	Testing method
Shielding effectiveness	dB	>60	KEC method (10 MHz to 10 GHz)
Conductivity (grounding ϕ1.0)	Ω	<1	Four-terminal testing method
Insulation resistance	MΩ	>5	Insulation Resistance Tester
Flexibility under bending	PI	>10w	Appendix C of JIS C6471
Weldability	—	No stratification	JIS C 6471 9.3 (288°C 10S)
Peel strength (with P)	N/cm	>7.8	IPC-TM650-2.4.9
Peel strength (with Cu attached)	N/cm	>7.8	IPC-TM650-2.4.9
Durability (Pencil Hardness Test)	—	2H	IPC-TM650-2.4.27.2
Corrosion resistance	—	No stratification	JIS C 6471 9.2和IPC-TM650-2.4.28.1
Hydrophilicity	%	<1.1	IPC-TM650-2.6.2

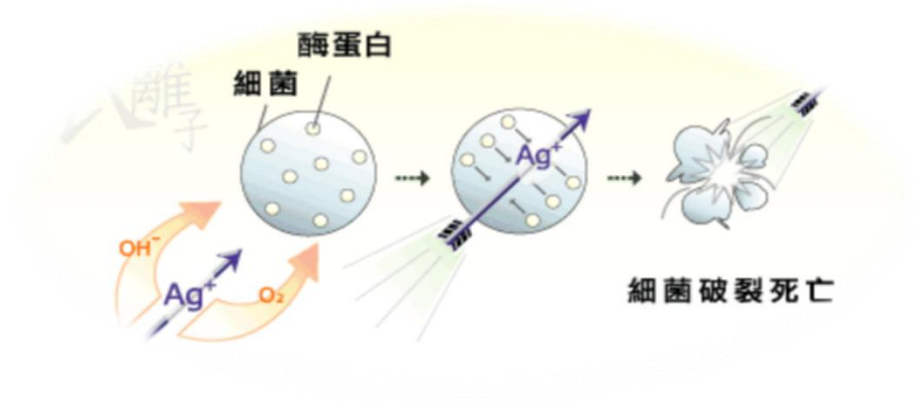
Note: The above figures are only for testing purposes and should be used for reference only!

Nanoscale
Fibers

Silver



Clothing, socks, and shoes made from antibacterial silver fibers can effectively inhibit and eliminate various pathogenic bacteria, demonstrating particular efficacy in treating eczema and dermatitis, eliminating bromhidrosis, and preventing cross-infection. These products are especially suitable for field troops operating in harsh environments or engaged in prolonged outdoor training.



Culture	Average antibacterial inhibition rate	Antibacterial rate after 50 washes
Staphylococcus aureus	> 98.0%	99.6%
Colibacillus	> 99.0%	99.9%
Candida albicans	> 90.0%	99.3%

Product name	Resistance (ohms/cm)	D-value after plating	50 cm fracture elongation	Fracture strength: 50 cm	Silver content
20D	20±5	30±5	10	0.08	82–85% nylon / 15–18% silver
40D	10±5	55±5	9	0.02	82–88% nylon / 12–18% silver
70D	8±3	85±5	8	0.27	82–88% nylon / 12–18% silver
100D	5±3	130±10	9	0.33	82–88% nylon / 12–18% silver
140D	5±3	160±10	7	0.44	82–88% nylon / 12–18% silver

We offer custom-made sewing threads in 200D,280D,400D, and 480D gauges to meet customer requirements. Elastic conductive ropes/wires, blended fabrics, etc.

Conductive Powder



Composite conductive powder is manufactured using metal/non-metal materials such as copper, nickel, aluminum, glass powder, and fibers (glass fiber, carbon fiber) as raw materials. Through surface modification treatment, a silver coating is applied to the surface, resulting in a composite conductive powder with excellent cost-performance ratio.

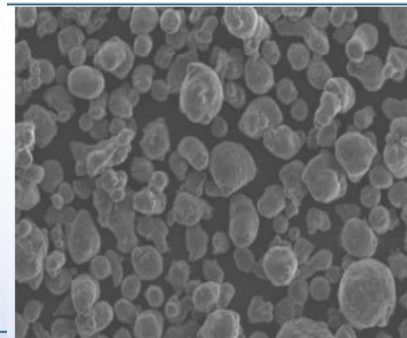
Silver pouch with aluminum powder

Morphology: Spherical

Silver content: 20-30%

Average particle size: 17-50 microns

bulk density: 1.1-1.5 g/cm³



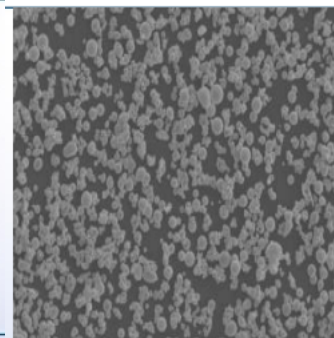
Silver powder for glass coating

Morphology: Spherical

Silver content: 12-30%

Average particle size: 11-40 microns

bulk density: 0.88-1.32 g/cm³



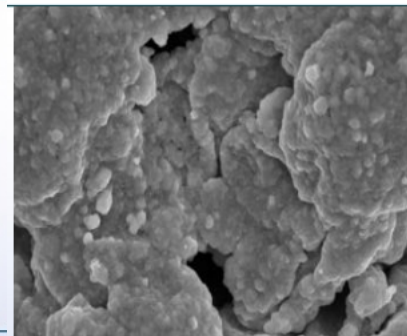
Silver powder and nickel powder

Morphology: Particle

Silver content: 18-20%

Average particle size: 32-40 microns

bulk density: 3.5 g/cm³



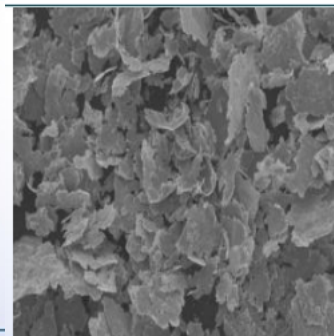
Silver powder mixed with copper powder

Morphology: Particle

Silver content: 15-30%

Average particle size: 12-45 microns

bulk density: 1.9-2.92 g/cm³



According to the customer's requirements, customized products with different shapes, various particle sizes and silver contents are provided.

Product Classification Application

► Multi-spectrum camouflage network

The multi-spectrum camouflage network is a **comprehensive stealth system** tailored for specific application scenarios and suitable for various backgrounds. It consists of metallized fabric, electromagnetic wave absorption layer, laser and infrared stealth layer, and optical camouflage layer, effectively resisting reconnaissance and detection by optical, infrared, and radar systems.

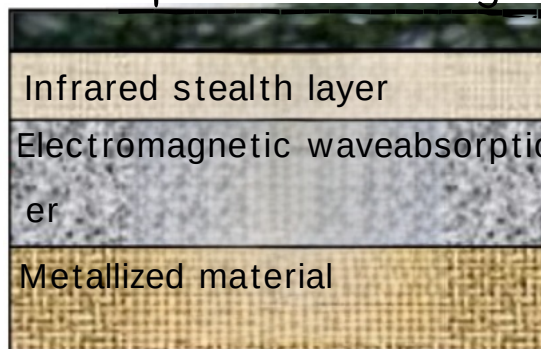
It can be applied to control target characteristic signals—such as radar bands, thermal infrared, near-infrared, and visible light—in ground weapon systems including main battle tanks, vehicles, and self-propelled artillery, significantly enhancing the battlefield survivability and operational effectiveness of these systems.



Decorative
panel
structure



Optical camouflage coating



Product Classification Application

► Screened tent

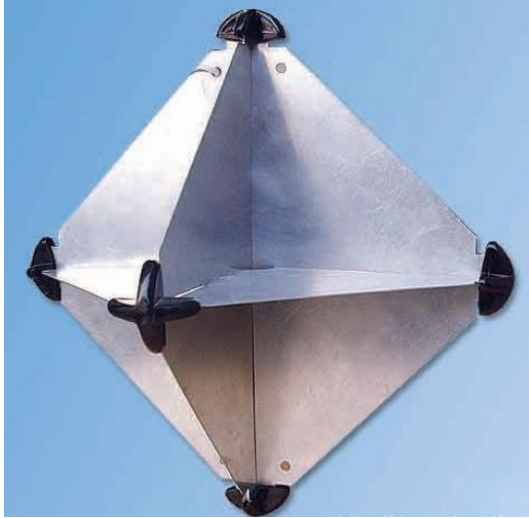


manufactured with flexible shielding materials, the internal electronic components can effectively resist electromagnetic interference from the external environment while emitting no electromagnetic radiation. This provides a safe and reliable shielding performance, making it suitable for outdoor field environments. It effectively suppresses electromagnetic leakage from electronic devices, safeguards electronic information security, and enhances the equipment's resistance to electromagnetic interference and electronic countermeasures.



Product Classification Application

► Military mock target



The military simulation target, manufactured from composite rubber using flexible shielding materials, can mislead enemy forces while protecting actual equipment in modern warfare, and is suitable for military training. The simulation target replicates the original equipment's dimensions at a 1:1 scale and operates across identical infrared and radar frequency bands.

Advantages: Easy to assemble and disassemble; lightweight after inflation; compact in size after deflation; convenient for storage; low transportation costs; suitable for repeated long-term use, resulting in cost savings.



Product Classification Application

► application scenarios



Disguise uniform



Shielded helmet



Military shielding bag



Shielded stealth net



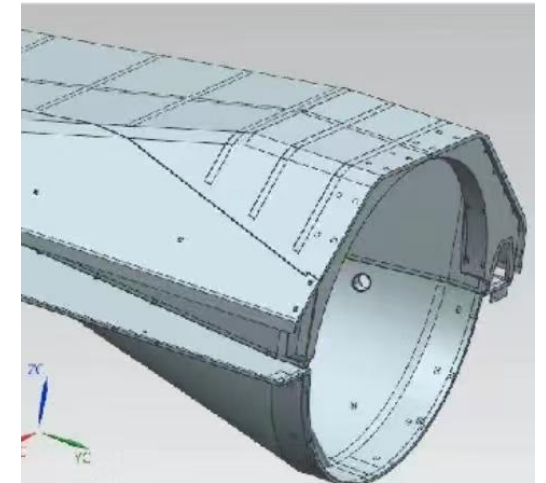
military footwear



Shielding Package



Net mesh shielding glass



Military ship safety compartment

This research focuses on developing multi-spectrum camouflage and stealth systems capable of accurately identifying and precisely striking ground weapons in modern warfare against threats from multiple sources—including drone surveillance radars, helicopter tracking radars and infrared imaging systems, land-based centimeter-wave battlefield surveillance radars, and millimeter-wave/infrared imaging-guided anti-tank missiles. The aim is to address key technologies for multi-spectrum compatible stealth, achieve lightweight equipment with multi-spectrum stealth capabilities, and reduce the detectability of military targets.

Light Weight	By employing lightweight materials and optimizing structural designs, electromagnetic shielding materials achieve reduced weight, meeting the mobility and energy efficiency requirements of military equipment.
Efficiency Enhancement	By improving the microstructure of the materials and optimizing the manufacturing process, the performance of electromagnetic shielding materials is significantly enhanced, resulting in improved shielding efficiency and response speed.
Multifunctionality	Develop multifunctional electromagnetic shielding materials with capabilities such as stealth, resistance to harsh environments, and biocompatibility to meet the specific requirements of various military applications.
Environmental Protection	By utilizing environmentally friendly raw materials and implementing green production processes, we reduce the environmental impact of electromagnetic shielding materials and promote sustainable development.