



Advanced Material Solutions

Smart shielding. Powerful protection. Invisible performance.

RHODETEC specializes in high-performance metallized textiles and films. By applying layers or structures of silver, copper, nickel, tin, or aluminum, we create advanced materials that shield electromagnetic radiation and also reduce infrared signatures for thermal camouflage.

Our materials are flexible, lightweight, and versatile, enabling solutions for a wide range of industries – from cybersecurity and defense to healthcare and personal protection. Whether you're securing sensitive data, blocking unwanted signals, or protecting human health, we deliver tailored solutions engineered to perform.

Highlights

- Up to 90 dB RF shielding effectiveness
- Stable performance from 1 MHz to 44 GHz
- Certified per IEEE 299 & ASTM D4935
- IR stealth and camouflage capabilities
- Smart textile integration
- Durable, long-lasting materials
- Flexible formats: woven, knitted, nonwoven, film
- From raw materials to finished products
- Antibacterial effect
- REACH & RoHS compliant

EMI / EMC Shielding

Defend data. Secure environments.

As electromagnetic emissions continue to rise in our increasingly connected world, controlling electromagnetic interference (EMI) and ensuring electromagnetic compatibility (EMC) is critical. Our metallized fabrics and films act as reliable shields against high-frequency radiation, blocking unwanted signals from entering or escaping protected zones.



Challenges Solved

- Protection against data theft, hacker attacks, and surveillance
- Prevention of unauthorized RF/IR signal transmission
- Blocking of laser microphones and advanced bugging devices
- Electromagnetic interference (EMI) in sensitive environments

Applications - Textile-Based

- RF-blocking pouches and faraday bags for keys, phones, and laptops
- EMI/EMC test chambers and RF enclosures
- Forensic boxes
- RFID protection solutions
- Shielding curtains and wallpaper

Applications - Film-Based

- Transparent window shielding for buildings, vehicles, and facades
- Invisible protection with high light transmittance



IR & Thermal Shielding

Block heat. Stay undetected.

Infrared radiation reveals heat signatures that can compromise stealth, privacy, and operational security. Our passive IR shielding solutions help to remain undetected, whether people, vehicles, or technology. By blocking thermal radiation, our materials reduce visibility to thermal cameras and sensors used in military, industrial, and surveillance contexts.

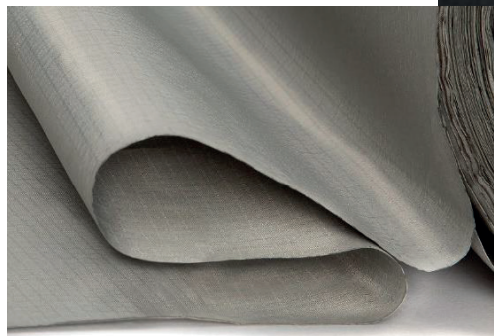


Challenges Solved

- Concealment from IR-based surveillance
- Reduction of heat signatures
- Passive camouflage for personnel, devices, and structures

Applications

- IR-stealth clothing for military and tactical use
- Protective tents and covers for vehicles and equipment
- Fabric shells for heat-sensitive infrastructure



Smart materials for healing, protection, and hygiene.

Silver is not only a powerful conductor - it's also a natural antimicrobial agent. Our silver-coated textiles combine the benefits of EMI shielding with hygiene-enhancing properties, offering effective solutions for medical, maternity, and personal wellness applications.



Challenges Solved

- Accelerated wound healing
- Radiation shielding for unborn children
- Odor reduction in garments
- Infection control in sensitive environments

Applications

- Wound dressings and medical patches
- Radiation-shielding maternity wear
- Antibacterial underwear and personal wearables



Looking for the Perfect Solution?

Contact Us!



Contact form

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