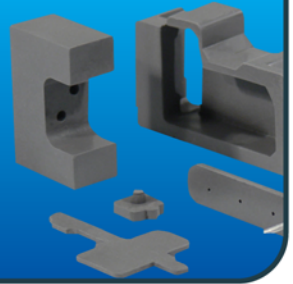




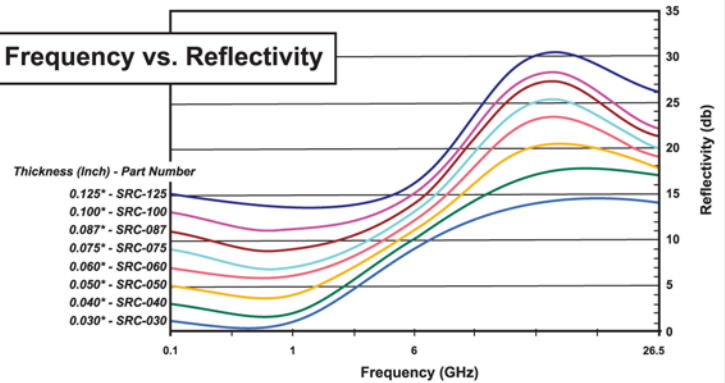
# SRC PolyIron® Ultra Thin High Frequency Microwave Absorber



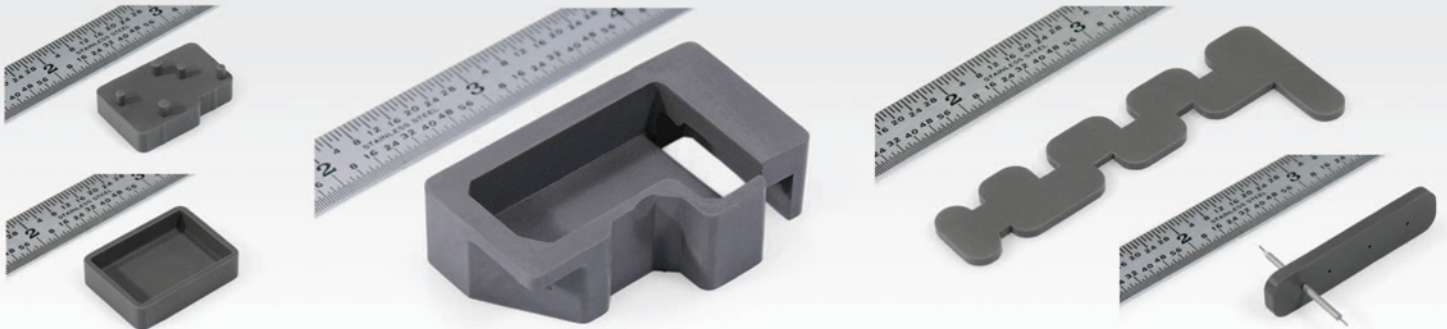
## Applications for PolyIron Microwave Absorber

- Waveguide Loads
- EMI RFI Shielding
- Eliminate RFID Interference
- Absorbing Cavity Resonance
- Antenna Side Lobe Attenuation
- Vehicle Obstacle Avoidance Radar
- Stealth Radar Absorber and Electronic 'Silencing'
- Cell Phone and Handset RF EMI Suppression

Frequency vs. Reflectivity



- Resistivity: 1012 Ω-cm
- Dielectric Strength: >500 V/cm
- Impedance: >500 Ω
- Permeability: 100 μ
- Bulk Capacitance: 146-165 pF/cm
- Operating Temperature: -40°C to 100°C



Unlike common Salisbury shields or gaskets, PolyIron magram absorber works to attenuate EMI by absorbing it, not by reflecting it. The advantage is that in small enclosures high frequencies cause cavity resonance-something shields don't really address. This is particularly important in today's densely packed microwave devices where space is at a premium, because typically only 0.2mm to 4.5mm thickness of PolyIron is all that is required.

SRC's PolyIron consists of a 5-to-1 pure iron oxide powder mixed with various catalysts to form a flexible material that is non-conductive, so you may use it effectively even in the most confined of enclosures-say a handset or for small spaces surrounding vehicle avoidance radar or to reduce antenna side-lobe interference. PolyIron was first used for military radar avoidance and stealth applications, but today PolyIron is increasingly used in the RF and microwave industry as operating frequencies continue to go up and design options to absorb unwanted microwaves and lower surface currents are harder to achieve. The typical range of frequencies our customers are addressing successfully is between .5 GHz to 40 GHz.

Available in sheet form, die-cut or molded 3D parts, PolyIron can be easily cut by hand to fit even the smallest of enclosures. SRC's proprietary binder formulation exhibits low out-gassing, is not susceptible to mold and mildew, and the material can handle demanding temperature and environmental extremes.

PolyIron is also available with peel-and-stick adhesive backing, in 14" by 6.5" sheets. Standard available thicknesses are .030, .050, .060, .075, .087, .100, and .125 inches.