

PolyIron™ Microwave Absorber

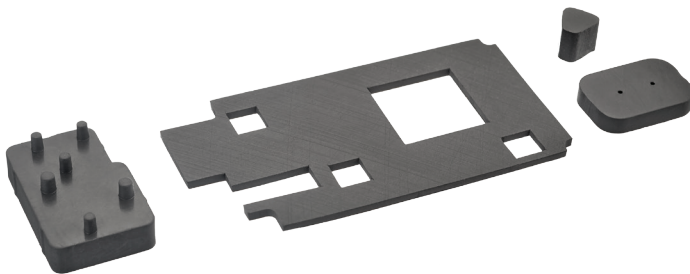


••••• PolyIron™ was first used for military radar avoidance and stealth applications, but today PolyIron is increasingly used in the RF and Microwave industry as operating frequencies continue to go up and design options to absorb unwanted microwaves and lower surface currents are harder to achieve. The typical range of frequencies our customers are addressing successfully is between .5 GHz to 40 GHz.

In sheet form, PolyIron can be easily cut by hand to fit even the smallest of enclosures. Winchester's proprietary binder formulation exhibits low outgassing, is not susceptible to mold and mildew, and the material can handle demanding temperature and environmental extremes.

Applications for PolyIron™ Microwave Absorber:

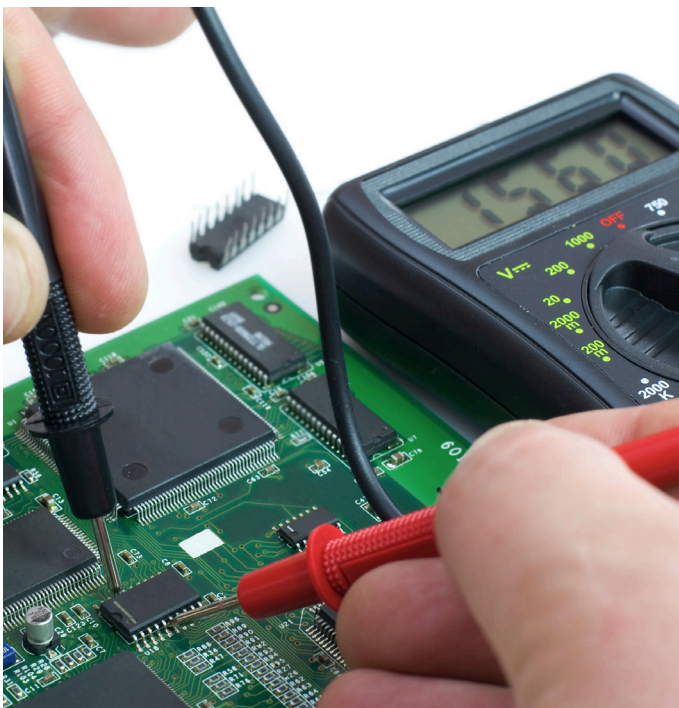
- Eliminate RFID Interference
- Absorbing Cavity Resonance
- Waveguide Loads
- Vehicle Obstacle Avoidance Radar
- Stealth Radar Absorber and Electronic 'Silencing'
- Antenna Side Lobe Attenuation
- Cell Phone and Handset RF EMI Suppression



PolyIron™ Microwave Absorber

Part Number	Thickness (Inches)	Permittivity			Permeability		
		ϵ'	ϵ''	Loss Tangent (Electric)	μ'	μ''	Loss Tangent (Magnetic)
SRC-030	.030	13.69	.337	.025	1.69	.502	.297
SRC-100	.040	16	1.085	.068	1.76	.604	.343
SRC-040	.050	13.56	.391	.029	1.66	.466	.281
SRC-050	.060	14.06	.514	.037	1.66	.461	.278
SRC-087	.075	15.77	.91	.058	1.7	.55	.322
SRC-060	.087	14.18	.553	.039	1.69	.479	.284
SRC-075	.100	17.08	.929	.054	1.75	.58	.332
SRC-125	.125	15.43	1.25	.081	1.71	.577	.337

Overall sheet dimensions are 14 x 6.5 inches with the exception of SRC-030 which is 8.8 x 6.5



RoHS Status

Lead (Pb) Content	Pass
Cadmium (Cd) Content	Pass
Hexavalent Chromium (Cr6) Content	Pass
Mercury (Hg) Content	Pass
Bromine Compounds	Pass

Military Specifications and Standards

IEEE-STD-1128	Free Space Method & Broadband Reflectivity (ARCH)
IEEE-STD-1129	Resonant Cavity Test
ASTM D5470	Thermal Conductivity
MIL-STD-285	Attenuation Measurements for Enclosures

Volume Resistivity

DESC 92017	<1.5 Ohm-cm (0.25 mm thick)
MIL-G-83528	3.45 MPa (500 psi) Load

Shielding Effectiveness

DESC 92017	Free Space Method & Broadband Reflectivity (ARCH)
MIL-G-83528	"E" Field - 100 dB 200 MHz to 18 GHz

Bomar
Continental
SRC Haverhill
SRI Connector Gage
SRI Hermetics
Tekna Seal
Winchester



Winchester products are now under the Win™ brand from Winchester Interconnect.