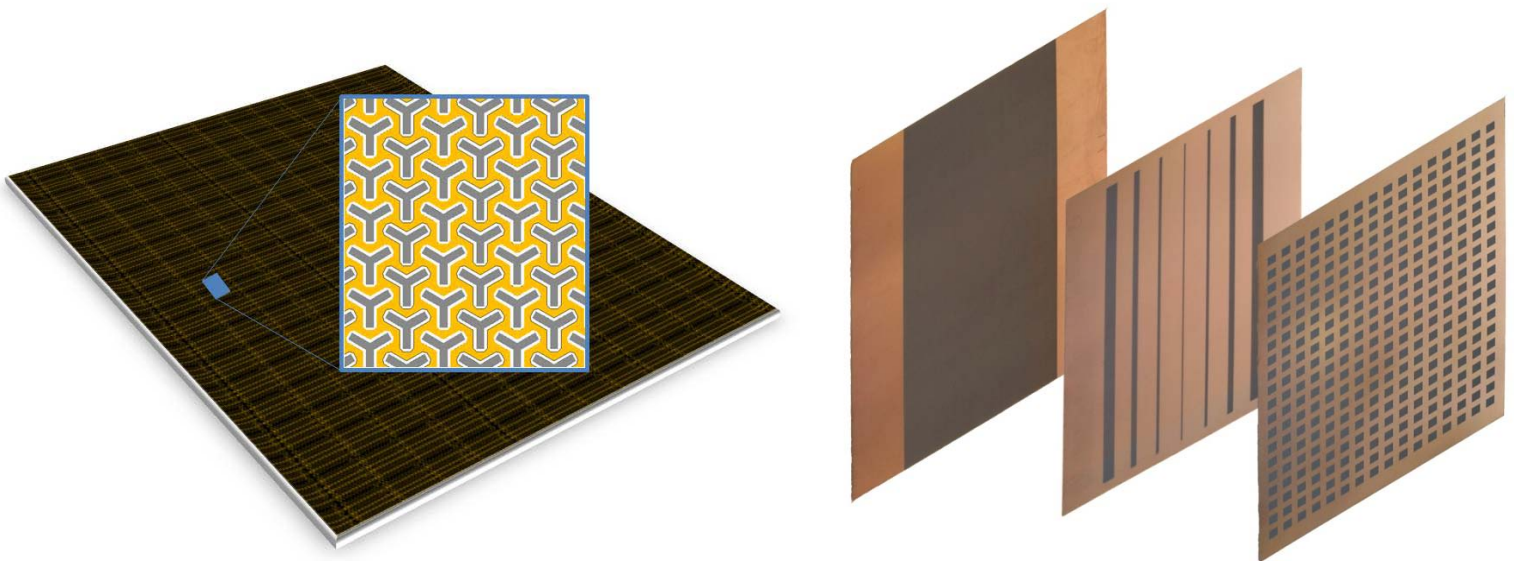


OhmegaPly[®] RF *ElectroMagnetic Absorbers*

OhmegaPly[®] NiP thin-film resistive material is used as an Electromagnetic Absorber in numerous applications. The concept has been in practice since the early days of Radar utilizing Radar Absorbing Materials (RAM), Resistive Cards (R-cards), High Impedance Surfaces (HIS) and Frequency Selective Surfaces (FSS).

The ability to laminate OhmegaPly to substrates of different permittivities and thicknesses and create repetitive, planar patterns using standard photolithography techniques is offering technological advantages at a reduced cost over more exotic materials and or processes. Some of the technological advantages include reduced thickness, reduced weight, increased bandwidth and improved performance covering wider angles of incidence.

OhmegaPly[®] is available directly from Ohmega Technologies, Inc. as a resistive foil, (OhmegaPly RCM[®]) or laminated to a variety of standard substrate materials. It can also be purchased laminated to a variety of microwave substrates directly from other sources including Arlon, Rogers and Taconic.



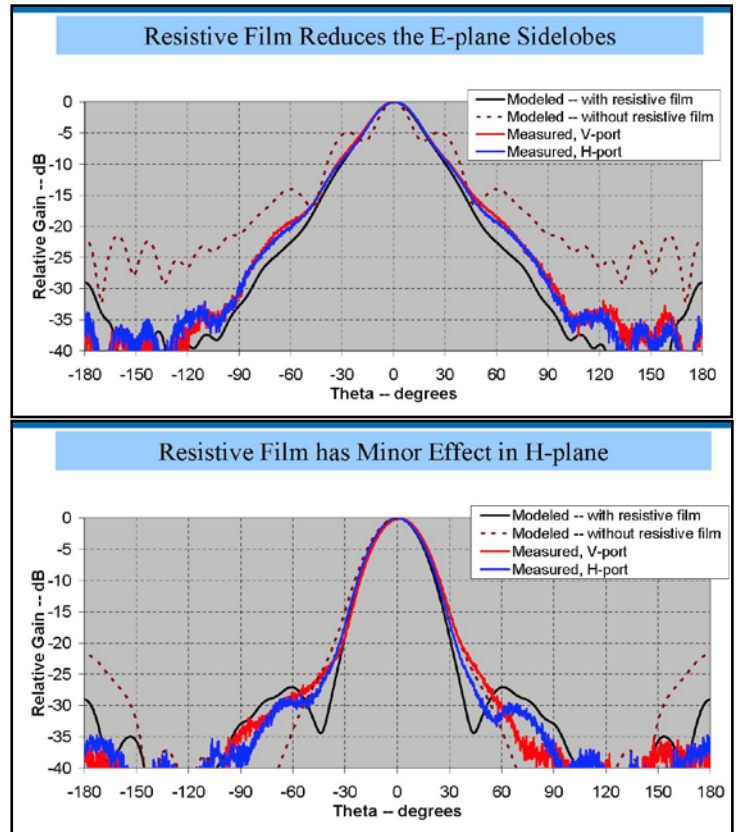
Examples of various patterns etched using OhmegaPly[®] Resistive Conductor Material



OhmegaPly® resistive cards (R-card)



Quad Ridge Horn designed with OhmegaPly resistive film to reduce sidelobes.



Charts: (a) Sidelobe reduction in E-plane when using OhmegaPly resistive film in Quad-Ridge Horn. (b) effect of resistive film in H-plane. Data courtesy of Toyon Research Corporation.

The above application was designed using OhmegaPly® resistive film to improve antenna performance. The OhmegaPly R-cards were used to reduce side lobes in the E-plane and essentially help focus the antenna radiation pattern. This work was carried out by Toyon Research Corporation in conjunction with Naval Air Warfare Center Weapons Division (NAWCWD) under contract N68335-03-D-0147.

