

## ECCOSORB® VF-30

Resistive Plastic Film for Microwaves

### Material Characteristics

- Conductive vinyl plastic film for 1-18 GHz
- Voltages can be picked off at many points over the surface of the material
- Can be softened at higher temperatures and bonded to itself by heat sealing at about 270°F (132°C)
- Will withstand outdoor temperatures
- Can be cut readily with a knife

### Applications

- ECCOSORB® VF-30 is used to line the interior of a cavity to lower Q or to alter the flow of high frequency currents. Wedges or tapers can be made and applied to the interior of waveguides as terminations
- Antenna Patterns can be modified by applying ECCOSORB® VF-30 to elements or reflector surfaces
- Can be used in place of Space Cloth or to make free space absorbers of the Salisbury Screen type. The film is spaced away from a metal surface by about ¼ wavelength. The resultant absorber is narrow-band. Wide band free space absorbers have been made from ECCOSORB® VF-30 by draping it over wooden frames to form a hollow cone or pyramid with the tip toward the source of radiation. Pressing cones or pyramids into the sheet has also been successful.
- Can be utilized in resistors or potentiometers. Geometric shaping of the sheet will produce a desired resistive gradient

### Availability

- Standard sheet is: 22.5" x 27.5" (57.2cm x 69.9cm)
- One standard thicknesses of 0.030" (7.6mm)
- ECCOSORB® VF-30 is available in customer specified configurations. This can be done either by die cutting, kiss cutting, or water-jet cutting parts.
- If a PSA is desired, the standard factory installed silicone or urethane PSA's are not employed, rather a PSA specifically designed for vinyl's is recommended to prevent the degradation of the adhesive due to plasticizers in the material. This can be supplied factory installed upon special requests.

### Instructions for Use

- To bond to other materials, apply ECCOBOND® 45 to both surfaces, press together and allow to cure.

### Typical Properties

Max. Service Temperature, °F (°C)	<150 (66)
X-Band Insertion Loss, dB	12
Volume Resistivity, Ohm-cm	5 - 50
Dielectric Constant @ 8.6 GHz	37.0
Dissipation Factor @ 8.6 GHz	1.15