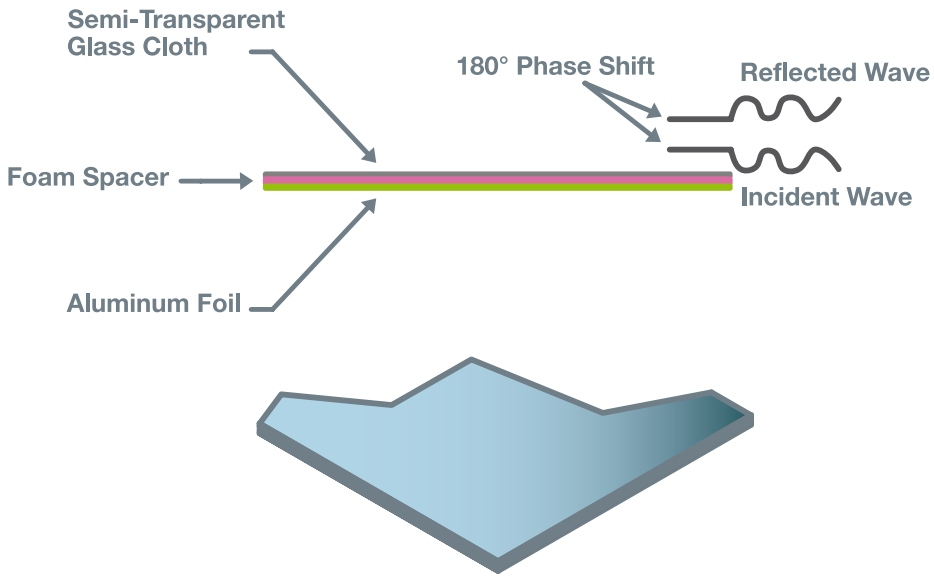
Tuned Frequency Absorbers - AET Series



AET-20

SOLUTION FOR

- **Radar Nacelles**
- **Tuned Frequency Requirements**

Main features

- Phase Cancellation Design
- Thin, Lightweight

Product configuration

Shape

- Flat

Frequency band

- Reflectivity: from 20 dB @ 10 GHz

Standard base size

- 2’ x 2’ (60.96 cm x 60.96 cm)

Height

- Dependent upon frequency, i.e. X-band = 0.172” Nominal

Operating conditions

- Temperature: -22º F to +158º F (-30º C to +70º C)

Indoor/outdoor

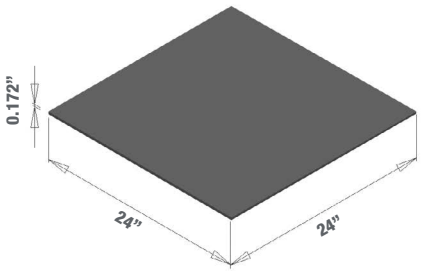
- Indoor and Outdoor

Description

Tuned Frequency RF absorber is a lightweight material utilizing a dielectric core. Through the use of a phase cancellation principle, attenuation equal to or greater than 20 dB at the design frequency can be achieved. The method of construction is a lamination of the following components:

- Conductive Front Layer
- Polyethylene Core
- Reflective Back Layer

The components are laminated such that the reflected wave coming off the back of the material is out of phase when it arrives at the front through the dielectric. Therefore, it has a canceling effect with the transmitted wavelength at the face of the material, thereby reducing its reflectivity.



AET-20 mechanical drawing

Typical properties

- Resistance to fuel, oil, & solvents - Good
- Self-supporting - Good
- Abrasion resistance - Fair
- Flexural capacity - Poor
- The absorbers can be ordered with customized centered frequency on demands.

Specifications

		AET-20
Base		Laminate of fiberglass cloth with a polyethylene foam spacer and an aluminum foil reflector.
Height	in	Dependent upon frequency i.e. X-band = 0.172" Nom.
Absorption @ Normal Incidence	dB	20 dB at design frequency
Power		3.0 Watts/Sq. In. @ 23°C C.W.
Weight	lbs/ft^2	Dependent upon frequency i.e. X-band = 0.16 lb/sq. ft.

US GOVERNMENT CUSTOMERS:
Save time by ordering this product using our National Stock Number - NSN 6625-00-790-0232

ORDERING CODE

- **AET-20**

Contact your local sales representative for more information
www.mvg-world.com/absorbers
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