

C-RAM® CFA

FLEXIBLE FOAM SHEET BROADBAND MICROWAVE ABSORBER

C-RAM® CFA is a series of lightweight, flexible, multilayered, carbon loaded broadband RF absorber sheet material.

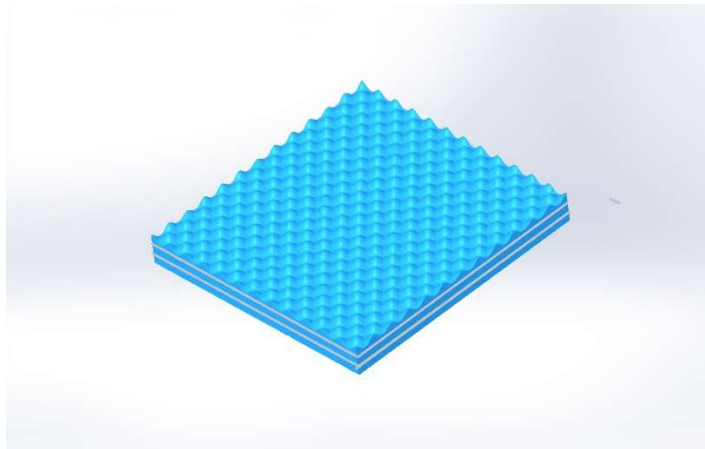
The front surface of the material has a shallow convoluted shape.

It is designed to provide typically -20 dB reflectivity reduction in a frequency range based on the material grade.

The product is flexible enough to conform to moderately contoured surfaces, and can readily be cut with a saw or electric knife to complex shapes. C-RAM® CFA is used for reducing reflections inside anechoic chambers, radomes, around antennas, inside test boxes and for modifying antenna radiation patterns.

C-RAM® CFA is designed for indoor use, in applications with no exposure to excessive moisture or UV sunlight. It is available with a sprayed on vinyl rubber coating (-RC) to give it more moisture resistance but it is not designed to function outdoors or to be exposed to the weather. Rubber coated or painted material is only recommended for applications below 30 GHz.

For outdoor applications the material can be wrapped in a weatherproof olive green neoprene fabric tarp (-W). Also for long term rain and UV exposure, the material can be wrapped in a white hypalon fabric (-HCN).



The material should be in intimate contact with an electrically conductive surface for proper reflectivity performance.

If the material is being bonded onto a non-conductive surface, Cuming Microwave can supply the product with a bonded-in-place metal foil lining, designated CFA-XXX-ML.

TYPICAL PROPERTIES

Color: Black, painted blue on front & sides.

Max. service temperature: 120 °C (250°F)

Thermal conductivity: 6.5×10^{-5}
cal-cm/sec-cm²-°C

<u>Grade</u>	<u>Thickness, mm (in)</u>	<u>Weight, kg (lb)</u>	<u>Density g/cm³</u>	<u>Frequency range of use</u>
CFA-19	25 (1.00")	0.57 (1.25)	0.08	4.5 - 85 GHz
CFA-30	35 (1.37")	0.80 (1.75)	0.08	3.5 - 85 GHz
CFA-60	60 (2.38")	1.50 (3.30)	0.07	2.5 - 85 GHz
CFA-115	121 (4.75")	2.95 (6.50)	0.07	2.0 - 85 GHz

Availability

Standard sheets are 24" x 24" (610 mm x 610 mm).

C-RAM® CFA is available in four standard grades depending upon the lowest desired frequency of operation.

C-RAM® CFA can be supplied in other sizes or per customer specific configurations.

Instructions for use

The C-RAM® CFA material can be bonded to many surfaces using a one part neoprene contact adhesive.

The adhesive can be sprayed or brushed on both the substrate and the back of the absorber panel. When the adhesive is still tacky, but not wet to the touch, the panel is pressed into place for an immediate and permanent fit. It's not recommended to stack the C-RAM® CFA material and also not to remove any layers as this will degrade the overall performance.