# Technical Data Sheet

# **Engineered Materials**



### C-RAM<sup>™</sup> FFS-125

### Flexible, broadband, magnetic microwave absorber

#### **Description**

C-RAM<sup>™</sup> FFS-125 is a broadband magnetically loaded flexible sheet material, which absorbs an average of 10 dB of incident RF energy across a frequency range of 2 to 12 GHz, over a wide range of incidence angles.

#### **Availability**

Standard sheets are 12" x 12" (305 mm x 305 mm).

C-RAM<sup>™</sup> FFS-125 can be supplied in other sizes, or per customer specified configurations upon request.

C-RAM<sup>™</sup> FFS-125 can be supplied with a metal backing (-ML), order as FFS-125-ML.

C-RAM<sup>™</sup> FFS-125 can also be supplied with a peel-and-stick pressure sensitive adhesive backing, order as FFS-125/PPGA.

As a standard, The C-RAM<sup>™</sup> FFS-125 base material is silicone, but it can also be supplied in a urethane base version.

#### **Applications**

Lining of antenna shrouds to minimize side lobes. Free space reflectivity reduction. Reduce radar cross section or backscattering.

#### **Method of application**

C-RAM<sup>™</sup> FFS-125 can be applied to a substrate by using a silicone RTV adhesive. The sheet must be in intimate contact with a metal surface for proper performance. For best results, the material should be scuffed with sandpaper, wiped with alcohol to remove dust and grease, and have a silicone primer applied to the metal substrate.

C-RAM<sup>™</sup> FFS-125 can also be supplied with a pressure sensitive adhesive backing (/PPGA).

### **Typical properties**

Frequency range 2 to 12 GHz
Color Gray-brown
Flammability Non-flammable
Reflectivity performance approx. -10 dB
from 2 to 12 GHz

Thickness 0.125 in (3.2 mm)

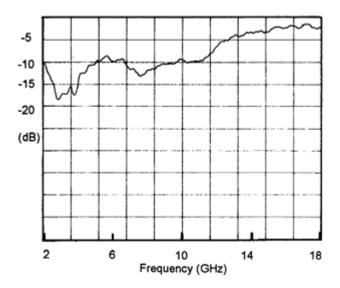
Weight 11.8 kg/m² (2.4 lb/ft²)

Service temperature -60 to +150°C
(-80 to +300°F)

Hardness, shore A 85

#### **Typical reflectivity**

The graph below shows typical free-space reflectivity performance of C-RAM<sup>™</sup> FFS-125, expressed as dB down from metal plate reflection, as a function of frequency. Measurement is made on a NRL near-field type arch.



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