# Technical Data Sheet

**Engineered Materials** 



## C-RAM<sup>™</sup> PIM 645 700 MHz – 7 GHz isolation foam

### Description

C-RAM<sup>™</sup> PIM 645 is a line of outdoor and indoor isolation foam sheet material, comprised of urethane foam and a lossy carbon loading.

C-RAM<sup>™</sup> PIM 645 has proven to be ideal for cellular and RF PIM reduction and isolation between antennas.

The open-cell structure permits airflow freely through the absorber. When used outdoors, rain will also freely drain from the product.

A fire-retardant version per UL94-HBF is available for indoor applications only, denoted C-RAM<sup>™</sup> PIM 465-FR.

#### **Availability**

Standard sheet sizes are 24" x 24" (610 x 610 mm) and 24"x48" (610x1220 mm).

C-RAM<sup>™</sup> PIM 645 can be supplied in other sizes or per customer specified configurations.

Standard thickness are 0.5", 1" and 2" thick.

#### **Applications**

PIM mitigation in cell towers, rooftop, cell sites and indoor systems as well.

PIM-645 can be used to de-couple adjacent antennas, and shield or isolate equipment.

#### Instructions for use

C-RAM<sup>™</sup> PIM 645 can be easily cut with a sharp knife, band saw, utility knife, or shears. It is easily applied to curves or cut to fit into various sizes.

C-RAM<sup>™</sup> PIM 645 can be securely applied to a substrate using a neoprene contact adhesive or a low dielectric plastic fasteners.

#### **Typical properties**

Frequency range	0.7 to 7 GHz
Color	Black
Porosity, pores per inch	4-20
Tensile strength, psi	8-12
Tear strength, lb/inch width	2.2
Density, lb/ft <sup>3</sup>	3.0
Ultimate elongation (%) max	275
Service temperature, °F (°C)	-40 to +200
	(-40 to +93)
Ozone adverse affects	No
Fungus resistance,	
evidence of fungus growth	No

#### **Typical insertion loss**

(dB down from reference)

<u>Thk.</u>	Performance	Freq. Range
0.5in.	-12 dB	700 MHz-3GHz
1.0in.	-25 dB	700 MHz-3GHz
1.5in.	-32 dB	700 MHz-3GHz
2.0in.	-40 dB	700 MHz-3GHz

#### **Typical PIM reduction**

Peak PIM reduction of -95 dBm.

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