Cuming Microwave

Founded in 1980 by noted materials scientist Dr. William R. Cuming, and now part of PPG, Cuming Microwave provides innovative materials for the microwave industry within several market segments including: aerospace, electronics, military, and medical. Our focus is the manufacture and development of Microwave materials that are used to absorb and shape electromagnetic energy.

Cuming Microwave is an ISO 9001:2008 manufacturer located in Avon, MA USA. Featuring C-RAM® microwave and RF absorbing materials, C-STOCK® dielectric materials, and turnkey Anechoic & EMC Chambers.

Our turnkey anechoic chambers are managed by Cuming Lehman Chambers, Inc. CLCI is a specialty general contractor and construction management group specializing in anechoic, RF shielded chamber facilities for RF/Microwave and EMC related testing.

Contact a local representative or email us at cmcsales@ppg.com

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Absorber installation:

Adhesive bonding: Most common installation technique and most cost effective. Involves the use of a solvent based rubber contact adhesive for reliable mounting.

Velcro™ fastening system: Ideal for small absorbers (SFC-18 or less) on ceilings and walls. Allows for easy dismounting and relocation. Can be used for wall mounting 24” and 36” absorber.

Clip and rail mounting: This is a mechanical fastening system ideal for large absorbers. It also allows removal and relocation of absorber with little or no damage.

Power handling:

No forced air With forced air

Standard power C-RAM SFC, FAC, CB 0.8 W/in² 1.25 W/in²

Medium power C-RAM EVA, SFC-MP, RFA 2.0 W/in² 3.0 W/in²

High power C-RAM SFC-HC 10.0 W/in² 80 W/in²

C-RAM SFC and C-RAM SFC Wedge Comprise a full product line of pyramidal cones, pyramidal and wedge-shaped absorbers for anechoic chambers and laboratory test setups.

A full complement of mounting versatility absorbers: C-RAM EVA and velcro absorbers. C-RAM SFC Wedge absorbers are available.

C-RAM SFC and associated products cover the frequency range from low MHz through millimeter wave.
Absorber installation:

- **Adhesive bonding**: Most common installation technique and most cost-effective. Involves the use of a solvent-based rubber contact adhesive for reliable mounting.
- **Velcro™ fastening system**: Ideal for small absorbers (SFC-18 or less) on ceilings and walls. Allows for easy dismounting and relocation. Can be used for wall mounting 24” and 36” absorber.
- **Clip and rail mounting**: This is a mechanical fastening system ideal for large absorbers. It also allows removal and relocation of absorber without tiling or damage.

Power handling:

- **No forced air**
  - Standard power: C-RAM SFC, FAC, CB (0.8 W/in²)
  - Medium power: C-RAM EVA, SFC-MP, RFA (2.0 W/in²)
  - High power: C-RAM SFC-HC (10.0 W/in²)

- **With forced air**
  - Standard power: C-RAM SFC, FAC, CB (1.25 W/in²)
  - Medium power: C-RAM EVA, SFC-MP, RFA (3.0 W/in²)
  - High power: C-RAM SFC-HC (80 W/in²)

- **C-RAM SFC and C-RAM SFC Wedge**: Complete line of premium grade, pyramidal and wedge-shaped absorbers for anechoic chambers and laboratory test setups. Wide sizes are available. C-RAM SFC and associated products cover the frequency range from 10 MHz to 30 GHz.

- **C-RAM SFC-EM**: Designed for high frequency compliance chambers and ideal for MIL-STD-461/462 chamber solutions for EN specifications from 30 MHz through 40 GHz frequencies.

- **Far-field anechoic chamber**: Designed and installed by Cuming Microwave, for measuring performance characteristics of aircraft microwave antennas.
Absorber installation:

**Adhesive bonding:** Most common installation technique and most cost effective. Involves the use of solvent-based rubber contact adhesive for reliable mounting.

**Velcro™ fastening system:** Ideal for small absorbers (SFC-18 or less) on ceilings and walls. Allows for easy dismounting and relocation. Can be used for wall mounting 24" and 36" absorbers.

**Clip and rail mounting:** This is a mechanical fastening system ideal for large absorbers. It also allows removal and relocation of absorber with little or no damage.

### Power handling

<table>
<thead>
<tr>
<th>Product</th>
<th>Function</th>
<th>Operating frequency</th>
<th>Thickness</th>
<th>Benefits</th>
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<tr>
<td>C-RAM SFC</td>
<td>High performance pyramidal absorber</td>
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<td>2&quot; to 27&quot;</td>
<td>Broadband high performance pyramidal absorber</td>
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<tr>
<td>C-RAM SFC wedge</td>
<td>High performance wedge absorber</td>
<td>100 MHz &amp; up</td>
<td>6&quot; to 34&quot;</td>
<td>Broadband wedge absorber</td>
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<tr>
<td>C-RAM SFC-EM</td>
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</tr>
<tr>
<td>C-RAM FT</td>
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<td>0.25&quot;</td>
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<tr>
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<td>Low frequency hybrid absorber</td>
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</tr>
<tr>
<td>C-RAM CFC</td>
<td>Clean room absorbers for suction &amp; ventilation applications</td>
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<td>C-RAM CPC</td>
<td>Clean room absorbers high performance</td>
<td>100 MHz to 30 GHz</td>
<td>4.0&quot; to 36&quot;</td>
<td>Clean room environment</td>
</tr>
</tbody>
</table>

### Absorber description

C-RAM SFC and C-RAM SFC Wedge Comprise a full product line of pyramidal, pyramidal and wedge-shaped absorbers for anechoic chambers and laboratory test setups.

A full complement of mounting styles absorbers: C-RAM SFC and wedge absorbers C-RAM SFC Wedge Fit are available.

C-RAM SFC and associated products cover the frequency range from low MHz through millimeter wave.

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Anechoic chambers and RF pyramidal absorbers