

Corporate Overview

About Us

MAST Technologies is a certified small business established 2009 in San Diego California. MAST is a designer and manufacturer of innovative materials for the military and electronics markets. MAST designs and manufactures elastomeric materials, inks/paints, and caulking materials with custom tailored electrical or mechanical properties. MAST Technologies prides itself on its ability to solve the design engineer's problems and its goal is to provide the highest level of service, most innovative solutions, and the most competitive prices in the marketplace.

Key Highlights

April 2010—MAST Technologies is awarded a **NAVAIR Phase I SBIR contract for "Development of a high temperature survivability coating, with innovative application process"**.

October 2010—MAST Technologies is down-selected for the Phase II effort with performance over 2 years.

Products & Services

Moderate Temperature Materials
 MagRAM
 EMI Absorbing Materials
 Loaded caulks, inks, and coatings
 High Temperature (HT) Materials
 MASTER MAG HT—Magnetically Loaded
 MASTER LDL HT— Low Dielectric
 MASTER Therm—Thermally Insulating
 Flame Break DL—Ablative Material
 Air Filtration Products
 Fire Retardant Coatings
 Toll Mixing
 Custom Formulations

Elastomer Processing

Coatings & Application



Lab Scale Development

Microwave Testing

Contact Information

MAST Technologies
 6370 Nancy Ridge Drive, Suite 103
 San Diego, CA 92121
 Cage Code: 5PN79

Tel: 858.452.1700
 Fax: 858.452.1702

sales@masttechnologies.com
 www.masttechnologies.com

Capabilities

Molding Press—36"/600 Ton
 Molding Presses—24"/400 Ton
 High Shear Two Roll Mixing Mill—24"
 2 Roll Mill—13" wide (two)
 Ball Mill—48 Gallon
 Clicker Die Cutting Press—20 Ton
 2 Roll Laminator
 Automated pneumatic spray booth
 Precision rubber sheet grinder
 Production Oven—128 ft³

Precision Doctor Blade
 Laboratory Oven
 Electrical Resistivity Probe
 Jar Roller—1/2 Gallon
 Hegmen Grind Gauge
 Various Zahn Cups
 7x Loupe
 Hot Air Flow Tester
 2000°F Box Furnace
 Dip tank with wringers

Microwave & EMI Absorption Materials



	MR1 Series	MR2 Series	MR3 Series	MR5 Series	MF1 Series	MF2 Series	MF3 Series
	Tuned Frequency	Cavity Resonance	Surface Wave	Low Frequency	Reticulated Foam	Lossy Foam	Convuluted Foam
Standard Products							
Elastomer Types Available	Nitrile, Silicone, Fluoroelastomer, Fluorocopolymer (Others Available)	Nitrile, Silicone, Fluoroelastomer, Fluorocopolymer (Others Available)	Nitrile, Silicone, Fluoroelastomer, Fluorocopolymer (Others Available)	Elastomer Blend	-	-	-
Available Thickness (in/mm)	0.020 - 0.180 (0.5 - 4.5mm)	0.010 - 0.180 (0.25 - 4.5mm)	0.010 - 0.180 (0.25 - 4.5mm)	0.001 - 0.040 (0.025 - 1.0mm)	0.375 - 1.25 (6.4 - 32mm)	0.125 - 0.50 (3.2 - 12.8mm)	1.50 - 3.00 (3.8 - 7.7 cm)
Pressure Sensitive Adhesive	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adhesive Thickness (in)	0.002, 0.005	0.002, 0.005	0.002, 0.005	0.001, 0.002	0.002, 0.005	0.002, 0.005	0.002, 0.005
Sheet Size	22" x 22", 24" x 24"	22" x 22", 24" x 24"	22" x 22", 24" x 24"	12" x 12", 12" x 30' roll	24" x 24", 24" x 48"	24" x 24", 24" x 48"	24" x 24"
Filler/Loading	Magnetic/Low Loading	Magnetic/Med Loading	Magnetic/High Loading	Specialty Magnetic High Loading	Carbon Gradient Load	Carbon Constant Load	Carbon Constant Load
Frequency Range	Tuned to any frequency 1 - 40 GHz	1 - 20 GHz	1 - 20 GHz	10 MHz - 3 GHz	2 - 18 GHz	2 - 18 GHz	2 - 18 GHz
dB Loss (% Energy Loss)	< -20 dB (99.0%)	< -10 dB (90.0%)	< -10 dB (90.0%)	-3 to -10 dB	-20 dB (90.0%)	-7 to -30 dB/inch	-20 dB (90%)
Surface Resistance	-	-	-	-	~ 800 Ω/sq	~500 Ω/sq	~500 Ω/sq
Durometer (Shore A)	70-90	70-90	70-90	70-80	-	-	-
Color	Grey	Grey	Grey	Glossy Grey	Grey	Grey	Grey
Foam Types Available (Pores/in)	-	-	-	-	10 -50 PPI	100 PPI	100 PPI
Product Format	Sheets, Die Cut, Kiss Cut	Sheets, Die Cut, Kiss Cut	Sheets, Die Cut, Kiss Cut	Rolls, Sheets, Die Cut, Kiss Cut	Sheets, Die Cut, Kiss Cut	Sheets, Die Cut, Kiss Cut	Sheets, Die Cut, Kiss Cut
Temperature Resistance	Nitrile - 300°F (days) Silicone - 350°F (days) Fluoroelastomer - 500°F Fluorocopolymer - 550°F	Nitrile - 300°F (days) Silicone - 350°F (days) Fluoroelastomer - 500°F Fluorocopolymer - 550°F	Nitrile - 300°F (days) Silicone - 350°F (days) Fluoroelastomer - 500°F Fluorocopolymer - 550°F	Elastomer Blend - 176°F	250°F (days)	250°F (days)	250°F (days)
Flammability Rating	Not Rated	UL94-V0* (* rating pending)	UL94-V0* (* rating pending)	UL94-V0	UL94-HF1 Available	UL94-HF1 Available	UL94-HF1 Available
Environmental Resistance	- Corrosion resistant fillers available - Environmental resistance is primarily based on elastomer. See Tech Bulletin 102 for more information.	- Corrosion resistant fillers available - Environmental resistance is primarily based on elastomer. See Tech Bulletin 102 for more information.	- Corrosion resistant fillers available - Environmental resistance is primarily based on elastomer. See Tech Bulletin 102 for more information.	- Intended for internal electronics applications. No environmentally enhanced version available at this time.	- Reticulated foam offers resistance to limited moisture and temperature. - Call a MAST technical representative for more information regarding methods to weatherproof foam materials.	- Lossy foam offers resistance to limited moisture and temperature. - Call a MAST technical representative for more information regarding methods to weatherproof foam materials.	- Convuluted foam offers resistance to limited moisture and temperature. - Call a MAST technical representative for more information regarding methods to weatherproof foam materials.
Environmental Features	Halogen/Lead-Free	Halogen/Lead-Free	Halogen/Lead-Free	Halogen/Lead-Free	Halogen/Lead-Free	Halogen/Lead-Free	Halogen/Lead-Free

MAST Technologies

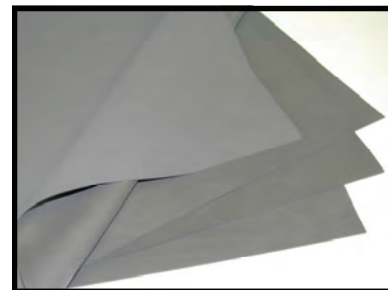
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Technical datasheets are available at www.masttechnologies.com/technicaldata
To obtain application assistance or samples, contact MAST Technologies or the Sales Representative in your area.

Tuned Frequency Absorber

MR1 Product Series



MAST Technologies' Tuned Frequency Absorber product series is a thin magnetically loaded sheet stock. Tuned Frequency Absorbers, also known as resonant frequency absorbers, provide great reflection loss at a discrete frequency, typically offering 20dB of attenuation. Tuned Frequency Absorbers offer a narrowband of absorption, typically $\pm 10\%$ of the resonant frequency, so are best used when a single discrete frequency is trying to be absorbed. MAST Engineers can tune an absorber to any frequency from 1 to 40 GHz, by simply changing the formulation and thickness.

APPLICATIONS

- Ship MASTs
- Specular return (RCS)
- Discrete frequency absorption
- Antenna isolation & patterning
- Aircraft seals
- Aircraft ducts
- Instrument housings

Elastomer Types / Features

Elastomer	Features
Silicone	-60 to 375°F
Nitrile	-60 to 220°F / Fuel Resistance
MRX7	-60 up to 800°F/ Fuel Resistance
Viton	-60 up to 550°F

TYPICAL PROPERTIES

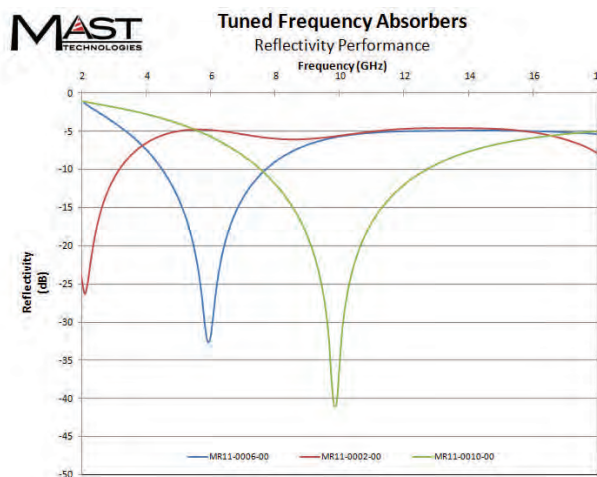
- Frequency: Tuned to 1—40 GHz
- Thickness: based on frequency
- Adhesive Thickness: 0.005" (0.12mm)
- Color: Dark Grey
- Flammability Rating: Not Rated
- Hardness: Shore A 60-80

PART NUMBERING: MR1A-BCDE-FG

- A: Elastomer Type
- BCDE: Part Specific Designator
- FG: PSA, Die Cut

ELECTRICAL PERFORMANCE

This performance plot illustrates the reflection loss performance of this material. Reflection loss is measured on an NRL arch, for more information on the NRL arch test set-up, please refer to Tech Bulletin 101. Additional electrical test data may be available upon request.



METHOD OF APPLICATION

The primary method of application for Tuned Frequency Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST uses 3M transfer tapes on its Tuned Frequency Absorbers. Contact MAST technical representatives for a datasheet on the PSA.

Other liquid and paste adhesives may be recommended. Contact a MAST technical representative for more information.

AVAILABILITY

- Standard Sheet Sizes: 20" x 20" (564 x 564mm)
- 24" x 24" (769 x 769 mm)
- Format: Sheets, Die Cut, Kiss Cut Pads

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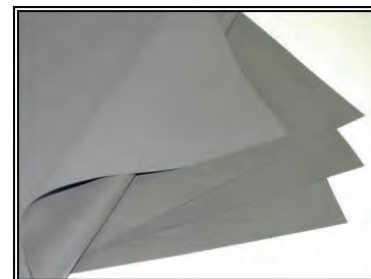
Revision: November 11, 2010

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Cavity Resonance Absorber

MR2 Product Series

MAST Technologies' Cavity Resonance Absorber product series is a thin magnetically loaded sheet stock having loss at microwave frequencies, while maintaining the desirable characteristics of elastomeric binders. Cavity Resonance Absorbers are designed to exhibit high loss and are intended to be applied to metal surfaces inside microwave cavities to reduce the Q of the cavity. Cavity Resonance Absorbers attenuate energy at normal and high angles of incidence at frequencies from 1 GHz to 20 GHz. The standard elastomer is silicone, but other elastomer formulations are available.



APPLICATIONS

- Resonant Cavity Attenuation
- EMI Reduction
- Rx/Tx Antenna Isolation
- System Isolation
- High Frequency Interference
- Inside a shielding can
- Specular Return (RCS)

Elastomer Types / Features

Elastomer	Features
Silicone	-60 to 375°F
Nitrile	-60 to 220°F /Fuel Resistance
MRX7	-60 up to 800°F/Fuel Resistance
Viton	-60 up to 550°F

TYPICAL PROPERTIES

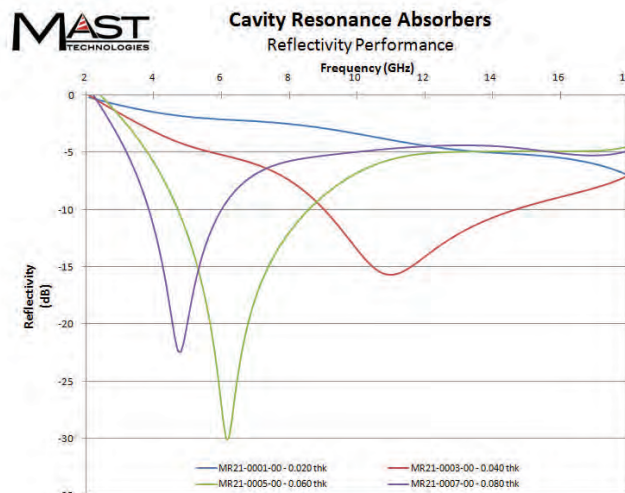
- Thickness: 0.010 to 0.190"
- Adhesive Thickness: 0.005" (0.12mm)
- Color: Dark Grey
- Elastomer: Silicone
- Operating Temperature: -60°F to 375°F
- Flammability Rating: UL94-V0

PART NUMBERING: MR2A-BCDE-FG

- A: Elastomer Type
- BCDE: Part Specific Designator
- FG: PSA, Die Cut

ELECTRICAL PERFORMANCE

This performance plot illustrates the reflection loss performance of this material. Reflection loss is measured on an NRL arch, for more information on the NRL arch test set-up, please refer to Tech Bulletin 101. Additional electrical test data may be available upon request.



METHOD OF APPLICATION

The primary method of application for Cavity Resonance Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST proudly uses 3M transfer tapes on it's Cavity Resonance Absorbers. Contact MAST technical representatives for a data-sheet on the PSA.

Other liquid and paste adhesive may be recommended. Contact a MAST technical representative for more information.

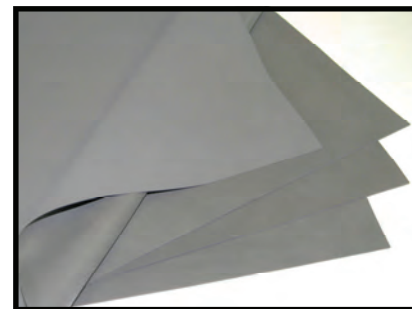
AVAILABILITY

- Standard Sheet Sizes: 20" x 20" (564 x 564mm)
- 24" x 24" (769 x 769 mm)
- Format: Sheets, Die Cut, Kiss Cut Pads

Surface Wave Absorber

MR3 Product Series

MAST Technologies' Surface Wave Absorber product series is a thin very highly loaded sheet stock having high loss at microwave frequencies, while maintaining the desirable characteristics of elastomeric binders. Surface Wave Absorbers are the most heavily magnetically loaded absorber. Surface Wave Absorbers are designed to exhibit the highest loss and are intended to be applied to metal surfaces for traveling or surface wave attenuation. Surface Wave Absorbers attenuate traveling wave energy at frequencies from 1 GHz to 20 GHz. The standard elastomer for this product series is silicone, but other elastomer formulations are available which may be better suited for specific environmental conditions.



APPLICATIONS

- Traveling, creeping, surface wave absorption
- Resonant Cavity Attenuation
- EMI Reduction
- Mounted to an IC on a PCB
- Mounted directly on a microstrip
- High Frequency Interference
- Inside a shielding can

ELASTOMER TYPES

Elastomer	Features
Silicone	-60 to 375°F
Nitrile	-60 to 220°F / Fuel Resistance
MRX7	-60 up to 800°F/ Fuel Resistance
Viton	-60 up to 550°F

TYPICAL PROPERTIES

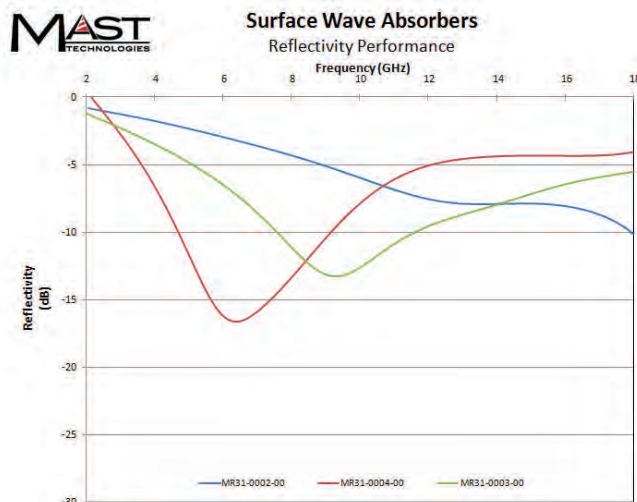
- Thickness: 0.010 up to 0.190"
- Adhesive Thickness: 0.005" (0.12mm)
- Color: Dark Grey
- Elastomer: Silicone
- Flammability Rating: UL94-V0
- Hardness: Shore A 60-80

PART NUMBERING: MR3A-BCDE-FG

- A: Elastomer Type
- BCDE: Part Specific Designator
- FG: PSA, Die Cut

ELECTRICAL PERFORMANCE

This performance plot illustrates the reflection loss performance of this material. Reflection loss is measured on an NRL arch, for more information on the NRL arch test set-up, please refer to Tech Bulletin 101. Additional electrical test data may be available upon request.



METHOD OF APPLICATION

The primary method of application for Surface Wave Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST proudly uses 3M transfer tapes on its Surface Wave Absorbers. Contact MAST technical representatives for a datasheet on the PSA.

Other liquid and paste adhesive may be recommended. Contact a MAST technical representative for more information.

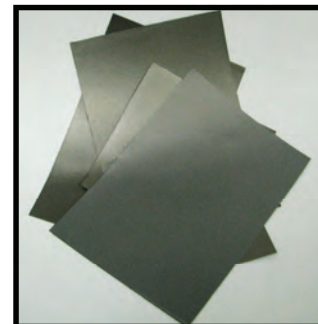
AVAILABILITY

- Standard Sheet Sizes: 20" x 20" (564 x 564mm)
- 24" x 24" (769 x 769 mm)
- Format: Sheets, Die Cut, Kiss Cut Pads

Low Frequency Absorber

MR5 Product Series

MAST Technologies' Low Frequency Absorber product series is a magnetically loaded sheet stock having high loss at sub-microwave frequencies. Low Frequency Absorbers are designed with shaped magnetic particles which exhibit high permeability at frequencies from 1 MHz to 3 GHz. The Low Frequency Absorber product line is the thinnest of the MR series products, with standard thicknesses of 0.006" and 0.020"; other thicknesses and configuration as available.



APPLICATIONS

- Traveling, creeping, surface wave absorption
- Resonant Cavity Attenuation
- EMI Reduction
- Mounted to an IC on a PCB
- Mounted directly on a microstrip
- High Frequency Interference
- Inside a shielding can

FEATURES & BENEFITS

- Tough material can survive outdoor exposure
- Very thin for compact locations
- Flexible elastomeric material will not crack
- Support broad frequency range
- RoHS Compliant
- Halogen Free

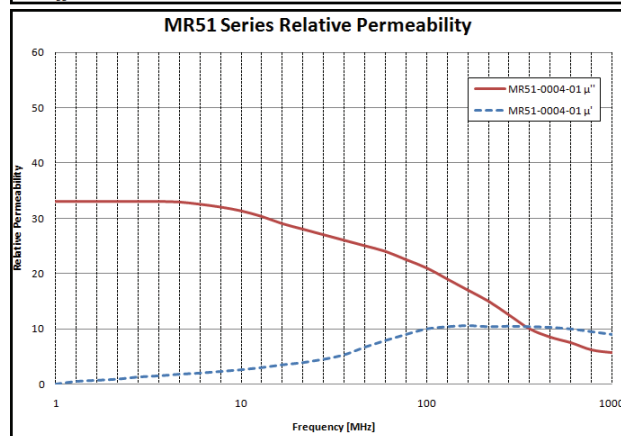
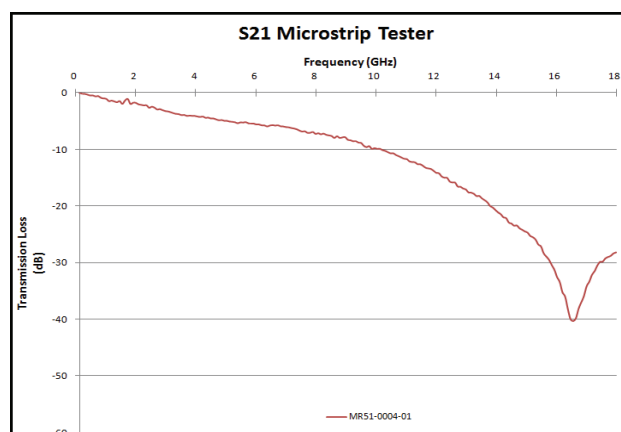
TYPICAL PROPERTIES

- Thickness: 0.006—0.040"
- Adhesive Thickness: 0.002" (0.05mm)
- Color: Dark Grey
- Operating Temperature: -60°F to 375°F
- Flammability Rating: UL94-V0
- Hardness: Shore A 60-80

PART NUMBERING: MR51-0000-XX

- 00: No PSA backing
- 01: PSA backing
- >01: Die Cut

ELECTRICAL PERFORMANCE



METHOD OF APPLICATION

The primary method of application for Surface Wave Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST proudly uses 3M transfer tapes on its Surface Wave Absorbers. Contact MAST technical representatives for a datasheet on the PSA.

AVAILABILITY

Standard Sheet Sizes: 12" x 24" (564 x 564mm)
12" wide rolls available upon request
Format: Sheets, Die Cut, Kiss Cut Pads

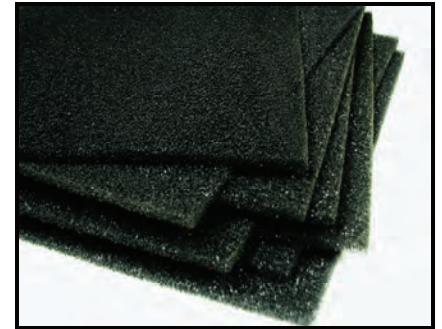
Revision: November 18, 2010



Reticulated Foam Absorber

MF1 Product Series

MAST Technologies' Reticulated Foam Absorber product series is a lightweight conductive carbon loaded sheet stock providing broadband loss at microwave frequencies. Reticulated Foam Absorbers are designed with a continuous gradient coating to exhibit high reflection loss and are intended to be applied to metal surfaces inside microwave cavities, housings, radomes, network enclosures, or antennae. Reticulated Foam Absorbers attenuate energy at normal and high angles of incidence at frequencies from 1 GHz to 18 GHz.



APPLICATIONS

- Antenna Pattern Performance
- Sidelobe/backlobe reduction
- Resonant Cavity Attenuation
- EMI Reduction
- Rx/Tx Antenna Isolation
- Radar Cross Section Reduction
- Dual use air filter/EMI absorber

FEATURES & BENEFITS

- Lightweight polyether reticulated foam
- Cost effective broadband material
- Easily applied with PSA
- Most broadband absorber material
- RoHS Compliant
- Halogen Free

TYPICAL PROPERTIES

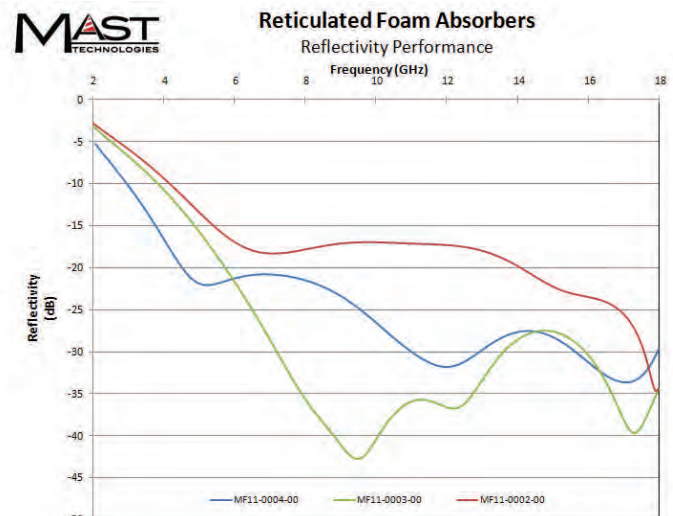
- Thickness: Varies
- Adhesive Thickness: 0.005" (0.12mm)
- Color: Black
- Operating Temperature: -60°F to 250°F
- Flammability Rating: UL94-HF1 Available

PART NUMBERING: MF11-0000-XX

- 00: No PSA backing
- 01: PSA backing
- >01: Die Cut

ELECTRICAL PERFORMANCE

This performance plot illustrates the reflection loss performance of this material. Reflection loss is measured on an NRL arch, for more information on the NRL arch test set-up, please refer to Tech Bulletin 101. Additional electrical test data may be available upon request.



METHOD OF APPLICATION

The primary method of application for Reticulated Foam Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST proudly uses 3M transfer tapes on its Cavity Resonance Absorbers. Contact MAST technical representatives for a data-sheet on the PSA.

Other liquid and paste adhesive may be recommended. Contact a MAST technical representative for more information.

AVAILABILITY

- Standard Sheet Sizes: 24" x 24" (564 x 564mm)
- 36" x 36" (769 x 769 mm)

Format: Sheets, Die Cut

MAST Technologies

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Revision: July 30, 2010

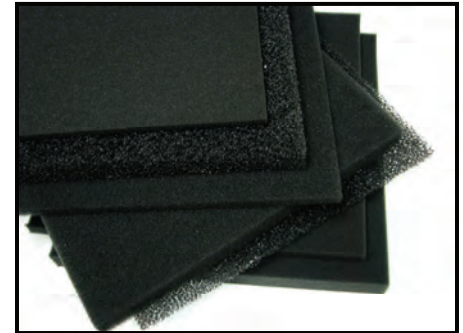
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Lossy Foam Absorber

MF2 Product Series

MAST Technologies' Lossy Foam Absorber product series is a lightweight conductive carbon loaded sheet stock providing broadband insertion loss at microwave frequencies. Lossy Foam Absorbers are designed with a constant coating to exhibit high reflection loss and are intended to be applied to metal surfaces inside microwave cavities, housings, radomes, network enclosures, or antennae. Lossy Foam absorbers are the lowest cost solution for attenuating energy at frequencies from 1 GHz to 18 GHz.



APPLICATIONS

- Antenna Pattern Performance
- Sidelobe/backlobe reduction
- Resonant Cavity Attenuation
- EMI Reduction
- Rx/Tx Antenna Isolation
- Radar Cross Section Reduction
- Dual use air filter/EMI absorber

FEATURES & BENEFITS

- Lightweight polyether reticulated foam
- Cost effective broadband material
- Easily applied with PSA
- Most broadband absorber material
- RoHS Compliant
- Halogen Free

TYPICAL PROPERTIES

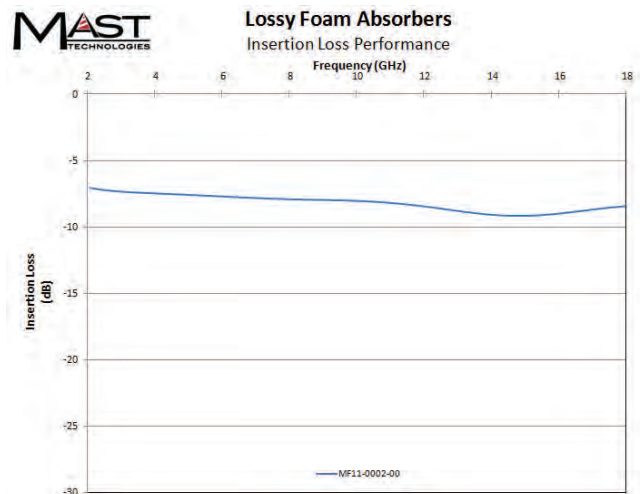
- Thickness: Varies
- Adhesive Thickness: 0.005" (0.12mm)
- Color: Black
- Operating Temperature: -60°F to 250°F
- Flammability Rating: UL94-HF1 Available

PART NUMBERING: MF11-0004-XX

- 00: No PSA backing
- 01: PSA backing
- >01: Die Cut

ELECTRICAL PERFORMANCE

This performance plot illustrates the reflection loss performance of this material. Reflection loss is measured on an NRL arch, for more information on the NRL arch test set-up, please refer to Tech Bulletin 101. Additional electrical test data may be available upon request.



METHOD OF APPLICATION

The primary method of application for Reticulated Foam Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST proudly uses 3M transfer tapes on its Cavity Resonance Absorbers. Contact MAST technical representatives for a data-sheet on the PSA.

Other liquid and paste adhesive may be recommended. Contact a MAST technical representative for more information.

AVAILABILITY

Standard Sheet Sizes: 24" x 24" (564 x 564mm)
36" x 36" (769 x 769 mm)

Format: Sheets, Die Cut

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Custom Filled Caulk Materials

For Aerospace Applications

MAST Technologies is a formulator of custom-filled caulking materials for aerospace applications. Caulk products are commonly used in the aerospace industry as adhesives, sealants, expansion joint materials, and to maintain surface continuity. MAST Technologies has the unique capability to design and formulate specialty filled caulks. Filler types include magnetic particles, conductive particles, glass microballoons, and aerogels. Common applications include EMI shielding, thermal barriers, and other survivability coatings.



AVAILABLE POLYMER TYPES

Silicone
Urethane
High Temperature Silicone
Viton™
Fluorosilicone
Silicone Ablative

APPLICATIONS

Sheet or gasket adhesives
Flight qualified materials filled with specialty fillers
Gap butter/caulks
EMI Shielding
MAG-RAM butters
High Temperature Applications

AVAILABLE FILLER TYPES

<u>Name</u>	<u>Description</u>	<u>Temp Range</u>	<u>Particle Size</u>
Glass Microballoons	Air-filled glass bubbles	1000°F	18 µm
Aerogels	Free-flowing thermal insulation	750°F	8 µm
Nickel Graphite	60% nickel graphite	N/A	60 µm
Iron powders	CIP, FeSi	450°F	3-5 µm

TYPICAL PROPERTIES

Viscosity: 500—12,000 cP
Cure Method: Room Temp, Oven, Heat
Blanket, vacuum bag
Environmental: Weather, jet fuel, hydraulic fluids, alcohols, acids, aromatic hydrocarbons

METHOD OF APPLICATION

Sprayed via HVLP sprayer
Cast and applied via adhesive
Putty knife applicator
Two part SEM-Kits
Caulk tubes

AVAILABILITY

Standard Formats:	Quart Cans	Caulking Tubes
	Gallon Cans	Two Part Kits
	SEM Kits	

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Please contact a MAST Technologies Technical Representative to discuss your specific application.

Revision: March 30, 2010

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Custom Filled Caulk Materials

For Electronics Applications

MAST Technologies is a formulator of standard and custom filled caulking materials for electronic applications. Caulk products are commonly used in the electronics industry for adhesives, sealants, joint materials, and to maintain surface continuity. MAST Technologies has the unique capability to design and formulate specialty filled caulks. Filler types include, magnetic particles, conductive particles, glass microballoons, and aerogels, and common applications are for EMI shielding, thermal barriers, and other survivability coatings.



AVAILABLE POLYMER TYPES

Silicone
Urethane
High Temperature Silicone
Viton™
Fluorosilicone
Silicone Ablative

APPLICATIONS

Sheet or gasket adhesives
Form In Place paste
Gap butter/caulks
EMI Shielding
Compression gaskets
High Temperature Applications

AVAILABLE FILLER TYPES

<u>Name</u>	<u>Description</u>	<u>Temp Range</u>	<u>Particle Size</u>
Glass Microballoons	Air filled glass bubbles	1000°F	18 µm
Aerogels	Free flowing thermal insulation	750°F	8 µm
Nickel Graphite	60% nickel graphite	N/A	60 µm
Iron powders	CIP, FeSi	450°F	3-5 µm

TYPICAL PROPERTIES

Viscosity: 500—12,000 cP
Cure Method: Room Temp, Oven, Heat
Blanket, vacuum bag
Environmental: weather, jet fuel, hydraulic fluids, alcohols, acids, aromatic hydrocarbons

METHOD OF APPLICATION

Sprayed via HVLP sprayer
Cast and applied via adhesive
Putty knife applicator
Two part SEM-Kits
Caulk tubes

AVAILABILITY

Standard Formats:	Quart Cans	Caulking Tubes
	Gallon Cans	Two Part Kits
	SEM Kits	

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Please contact a MAST Technologies Technical Representative to discuss your specific application.

Revision: August 3, 2010

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Water-Based Phenolic Inks

For Aerospace Applications

MAST Technologies is a formulator of custom-filled inks and coating materials for aerospace applications. MAST Technologies has developed a custom water-based phenolic ink for use in aerospace and military applications. The product utilizes an industrial waterborne phenolic resin, which was originally designed for pre-preg and laminates. This unique MAST coating material can be loaded with a variety of fillers including conductive carbon particles, high temperature fillers, and low dielectric fillers. MAST Technologies has a 50 gallon ball mill, so large batch manufacturing may be accomplished.



TYPICAL PROPERTIES

Solvent	Water
Type	phenol-formaldehyde
Non-Volatiles	>90%*
Storage Life	6 months at 40 deg F
Formaldehyde	1.5% Maximum

* may vary with specific ink formulation

TYPICAL FILLER TYPES

Conductive Carbon:	
	100—1200 Ω /sq (3 mil wet drawdown)
EMI Shielding Conductive Particles:	
	< 30 m Ω * cm

TYPICAL PROPERTIES

Viscosity:	10 - 50 cP
Cure Method:	Room Temp, Oven, Heat Blanket, vacuum bag
Environmental:	Weather, jet fuel, hydraulic fluids, alcohols, acids, aromatic hydrocarbons

AVAILABILITY

Formats:	Quart Cans
	Gallon Cans
	30 or 55 Gallon Drums

APPLICATIONS

Aerospace coatings
Survivability coatings
EMI Shielding
High Temperature Applications
Treatment of foams or honeycomb materials

MIXING EQUIPMENT

0.5 gallon roller jar mill
1.5 gallon roller jar mill
50 gallon Abbe ball mill



50 Gallon Ball Mill

METHOD OF APPLICATION

Sprayed via HVLP sprayer
Dipped
Flow Coated

CURE PARAMETERS (typical)

300°F for 30—150 minutes
Post cure at 500°F

MAST Technologies

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Please contact a MAST Technologies Technical Representative to discuss your specific application. Visit www.masttechnologies.com for more about capabilities.

Revision: August 3, 2010

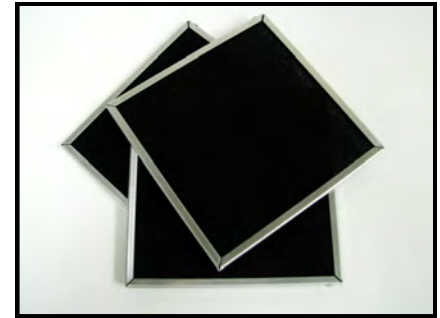
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MASTER-FLO™ Air Filter

MA10 Series

MASTER-FLO MA10 Series Air Filters offer fire resistance, fungus resistance, and high dust arrestance while maintaining low pressure drop. MASTER-FLO Air Filters are designed to capture high amounts of airborne dust in industrial and electronic enclosure applications. MASTER-FLO Air Filters are the perfect fit for equipment where permanent, cleanable filters are required.



Applications

MASTER-FLO MA10 Series filters are widely used in a variety of indoor and outdoor electronic equipment applications. The filter's compliance to UL94-HF1 self-extinguishing flame standard enables it to be easily adopted in electronic equipment in the military, medical, industrial, and networking industries. MASTER-FLO Air Filters are offered in a broad range of porosities to meet filtration requirements, making them easily adopted for customer specific requirements.

MASTER-FLO MA10 Air filters are designed to be used in harsh and even outdoor environments. Compliance to flame, fungus, and dust resistance standards make them an ideal choice for industrial and electronic enclosures of all kinds. MASTER-FLO Air Filters are designed with robust aluminum frames with optional expanded aluminum support grid, making the filter well suited for outdoor corrosive or high wind applications.

Certifications



Filter Media

MASTER-FLO Air Filter media is based on polyether based open celled foam, available in various porosities (measured in Pores Per Inch—PPI). The foam is specially treated with fire retardant and anti-fungal coatings. MASTER-FLO Air Filter media passes UL94-HF1 flame resistance standard.

Contact a MAST Technologies technical representative for more information on how to select a filter porosity.

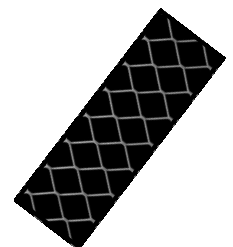
Volumetric Air Flow Rate

PPI	15	20	30	40	50
Volumetric Air Flow Rate	24.0	22.0	18.0	15.0	13.0

Frame

MASTER-FLO air filter frames are most commonly formed from 0.031" thick aluminum. Flat aluminum sheet material is formed into a single piece C channel, and are tightly fit around the filter media, and riveted into place.

Expanded aluminum may be chosen to add support to the media, with minimal loss to pressure drop performance. MASTER-FLO air filters utilize expanded aluminum which is approximately 85% open to ensure that maximum air flow is achieved. Expanded aluminum can be utilized on one or both sides of the filter media.



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