Memtech Acoustics



Sound-Retardant Products

A complete line of Architectural Acoustic Door and Window Systems - available with positive pressure UL fire ratings.



Overview



For over 50 years, the manufacturer has been an industry leader in the design, testing, and manufacturing of Architectural Acoustic Door and Window Systems. All of its acoustical products have been independently tested to the latest ASTM standards as complete operable systems at Riverbank Acoustical Laboratories of Geneva, IL to ensure they perform as intended. It has also tested many of its acoustical products to the latest UL fire test standards, including UL 10B (neutral pressure), UL10C/UBC 7-2 (positive pressure).

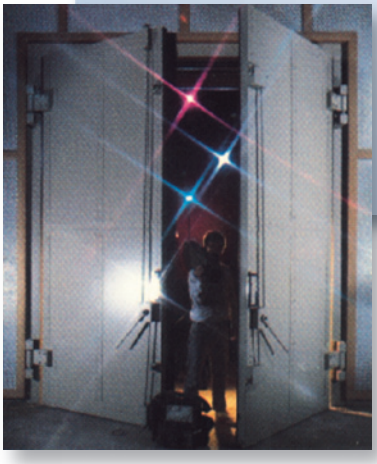
For complete information about the Sound-Retardant product line, including cut sheets, specifications, hardware compatibility bulletins, wall anchorage and sill details, complete acoustical test reports, and installation instructions for metal swinging and sliding doors, wood swinging doors and fixed window systems, contact Memtech Acoustics.



Metal Swinging Doors

Because of the manufacturer's unique manufacturing methods and patented designs, these Architectural Acoustic Doors achieve a higher STC and are lighter weight than most comparable doors on the market, and are lead and asbestos free. Metal Swinging Doors are available in single swing and pair configurations. Sizes of Metal Swinging Doors include:

- Personnel size, which is up to 4' x 10' singles and 8' x 10' pairs;
- Oversized, which is any opening larger than personnel size in any dimension.



A majority of the personnel size doors are available with up to 3-hour Fire Labels. These Fire Labels meet both UL10B (neutral pressure) and UL10C/UBC 7-2 (positive pressure) requirements. Oversized doors are not available with Fire Labels, but the manufacturer will certify that units are fabricated from UL fire-resistant materials and assembly techniques. Not all features are available for all models. Consult Memtech Acoustics for your specific needs to determine availability.

Frequently Used Metal Door Models

Single Compression Gaskets

Physical Characteristics and Certified Test Performance per ASTM E90 and E413 | **Door Test Performance Characteristics per ASTM E90 and E413**

STC	Model Number	Tested Maximum Glass Area	Weight Lbs./sq. ft. (kg/m²)	Hardware		Seal Type	U.L. Fire Labels	Notes	Transmission Loss in dB/Hertz - 1/3 Octave Bands																			STC
				Hinges	Lockset				100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000		
43	439572	consult Memtech	6.8 (33.0)	standard	mortise or cylindrical	Double Bubble	BCDE	1,3,8	25	29	33	34	33	40	39	39	41	44	46	42	43	46	50	52	53	53		43
45	459573	consult Memtech	6.83 (33.2)	standard	mortise or cylindrical	Model H	BCDE	1,3,8	24	29	33	33	33	40	39	41	43	45	47	46	48	49	52	56	57	57		45
46	4695163	1728 sq.in. (11,156 sq. cm.)	13.95 (33.0)	cam-lift MCL-500	mortise or cylindrical	Model H	consult Memtech	1,2,3,7	27	27	35	35	33	35	41	44	45	46	48	50	53	54	54	54	52	53		46
48	489383	consult Memtech	9.0 (43.9)	standard	mortise or cylindrical	Model H	BCDE	1,3,8	27	28	31	32	33	40	47	49	50	50	50	50	53	53	54	54	55	59		48
48	4895161	consult Memtech	11.7 (57.0)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,9	24	29	36	36	39	43	44	47	47	46	46	48	51	53	53	54	55	57		48
49	4992295	100 sq.in. (645 sq. cm.)	11.2 (54.7)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,7,8	28	32	37	41	42	42	43	46	47	49	50	51	51	54	47	52	53	55		49
50	509575	consult Memtech	8.7 (42.5)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,8	27	29	36	38	41	40	44	45	51	52	52	52	55	56	56	56	57	57		50
50	509391	consult Memtech	13.6 (66.4)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,9	29	31	33	33	36	43	48	49	52	54	54	56	56	59	61	61	61	59		50
51	5192288	300 sq.in. (1935 sq. cm.)	11.9 (58.2)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,7,8	28	29	32	39	42	43	46	47	52	53	53	54	56	58	60	59	59	61		51
52	5292185	consult Memtech	11.2 (54.7)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,8	34	37	41	41	43	43	45	50	52	51	51	53	56	58	60	59	60	61		52
57	5792190	consult Memtech	14.0 (68.4)	cam-lift MCL-500	mortise or cylindrical	Model H	BCDE	1,2,3,5,8	41	45	45	45	48	49	52	53	54	56	59	61	62	64	67	68	70	71		57

Single Magnetic Gaskets

Physical Characteristics and Certified Test Performance per ASTM E90 and E413 | **Door Test Performance Characteristics per ASTM E90 and E413**

STC	Model Number	Tested Maximum Glass Area	Weight Lbs./sq. ft. (kg/m²)	Hardware		Seal Type	U.L. Fire Labels	Notes	Transmission Loss in dB/Hertz - 1/3 Octave Bands																			STC
				Hinges	Lockset				100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000		
43	439388	consult Memtech	8.1 (39.5)	cam-lift MCL-500	mortise or cylindrical	magnetic	BCDE	1,2,3,8	23	26	29	29	29	34	36	43	45	45	45	44	47	49	52	55	55	56		43
46	469312	consult Memtech	10.0 (48.8)	cam-lift MCL-500	mortise or cylindrical	magnetic	BCDE	1,2,3,8	27	30	37	37	39	37	40	43	45	45	45	47	49	51	53	53	55	59		46
46	469387	consult Memtech	9.0 (43.9)	standard	mortise or cylindrical	magnetic	BCDE	1,3,8	29	29	32	32	33	40	44	46	48	45	46	45	47	49	52	54	55	56		46
49	499590	consult Memtech	11.0 (53.8)	cam-lift MCL-500	none	magnetic	NA	1,2,3,8	31	33	38	41	44	44	45	48	50	50	47	46	48	51	54	55	54	57		49
50	509589	consult Memtech	11.0 (53.8)	cam-lift MCL-500	mortise or cylindrical	magnetic	BCDE	1,2,3,8	32	33	38	40	44	44	45	49	50	52	48	46	50	52	55	56	54	58		50

Dual Compression Gaskets

Physical Characteristics and Certified Test Performance per ASTM E90 and E413 | **Door Test Performance Characteristics per ASTM E90 and E413**

STC	Model Number	Tested Maximum Glass Area	Weight Lbs./sq. ft. (kg/m²)	Hardware		Seal Type	U.L. Fire Labels	Notes	Transmission Loss in dB/Hertz - 1/3 Octave Bands																			STC
				Hinges	Lockset				100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000		
54	5492298	consult Memtech	15.0 (73.2)	cam-lift MCL-1000	mortise or cylindrical	Dual Model H	ABCDE	1,2,3,4,8	37	39	41	41	44	46	49	51	53	55	55	56	60	63	64	66	68	69		54
55	5592175	consult Memtech	20.4 (99.6)	cam-lift MCL-1000	mortise or cylindrical	Dual Model H	ABCDE	1,2,3,6,8	38	39	39	42	44	46	51	52	53	55	55	58	61	63	64	67	69	70		55

Dual Magnetic Gaskets

Physical Characteristics and Certified Test Performance per ASTM E90 and E413 | **Door Test Performance Characteristics per ASTM E90 and E413**

STC	Model Number	Tested Maximum Glass Area	Weight Lbs./sq. ft. (kg/m²)	Hardware		Seal Type	U.L. Fire Labels	Notes	Transmission Loss in dB/Hertz - 1/3 Octave Bands																			STC
				Hinges	Lockset				100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000		
46	460460	1360 sq.in. (8,772 sq. cm.)	12.8 (62.5)	cam-lift MCL-1000	mortise or cylindrical	dual magnetic	BCDE	1,2,3,4,8	31	30	35	36	34	34	39	41	45	49	50	50	50	54	57	59	60	62		46
47	470463	300 sq.in. (1935 sq. cm.)	13.7 (66.9)	cam-lift MCL-1000	none	dual magnetic	none	1,2,3,4,8	32	26	32	36	40	44	45	45	46	47	47	47	50	53	55	56	57	60		47
49	490464	300 sq.in. (1935 sq. cm.)	14.8 (72.2)	cam-lift MCL-1000	mortise or cylindrical	dual magnetic	BCDE	1,2,3,4,8	32	26	31	37	40	44	45	46	48	49	49	51	53	56	58	60	61	62		48
50	509592	consult Memtech	15.0 (73.2)	cam-lift MCL-1000	none	dual magnetic	none	1,2,3,4,8	34	36	39	41	42	44	47	48	51	51	47	48	51	52	53	55	55	58		50
53	539591	consult Memtech	15.0 (73.2)	cam-lift MCL-1000	mortise or cylindrical	dual magnetic	ABCDE	1,2,3,4,8	33	35	39	41	42	44	49	53	55	54	52	53	56	57	58	60	62	64		53

Notes:

NA Not available or applicable.

(1) All doors tested in fully operable condition.

(2) All cam-lift hinges are of proprietary design and manufacture and are supplied with the doors.

(3) All seals are of proprietary design and are supplied as a part of the system. Model H seals are protected by patents.

(4) Door has a 1 3/4" (44 mm) nominal thickness. These models have a 1" (25 mm) thick applied panel on the interior side inset from door edges. Depending on swing and lock placement, extended cylinders, spindles and lever handles may be required. Please check with Memtech Acoustics.

(5) Tandem doors tested in a single frame with a 7" (178 mm) airspace between doors.

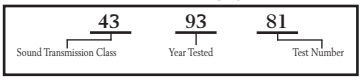
(6) Door has a 2 1/8" (54 mm) nominal thickness with a 7/8" (22 mm) thick applied panel on interior side inset from the door edges. Extended cylinders, spindles and lever handles are required. Check with Memtech Acoustics for specific details.

(7) When fire label is required, a maximum glass area of 100 sq. in. (645 cm²) only is permitted for 1 1/2 hr. ratings and 1296 sq. in. (8361 cm²) for 3/4 hr. ratings.

(8) Doors are tested as fully operable 3'-0" x 7'-0" (914 mm x 2134 mm) single doors as specified by Standard ASTM E90. Pairs of doors are fitted with additional gasketing at meeting stiles. Variation in attenuation may occur at the higher frequencies.

(9) These units were tested as fully operational pairs.

Product Numbering System





Metal Sliding Doors

At STC 51, the Acoustic Sliding Door is one of the highest rated sliding doors of its type on the market. The door is available in single and bi-parting configurations and is designed with a unique track system that automatically cams the door down and inward utilizing gravity to compress all seals. Because of this unique action, a flush, barrier-free threshold can be used. This flush threshold feature allows the easy passage of heavy machinery, scenery, engine test stands, etc. through the door opening.



Metal Fixed Window Systems

Metal Fixed Window Systems offer STC ratings from 37 to 55. Window systems are available in single and dual-glazed units. Dual-glazed units can be provided with dual purging ports, when requested, for inert gas evacuation of water vapor between glazed panels.

The manufacturer offers a 3/4 hour UL fire rating on window model STC529272 when one pane utilizes fire rated glass in tandem with one pane of 1/4" laminated glass. Dual-glazed acoustic/bullet-resistant window models include STC 55 UL Level 1 and STC 52 Level 4 systems.

Metal Fixed Window Systems include the following features:

- Neoprene and Zipper Type gasketing systems
- Single and dual-glazed windows available with vertical or sloped glazing
- Sheet steel materials used for fabrication can include: A366 cold rolled; A924 galvannealed with A60 coating; type 304 or 316 stainless with #4 finish.

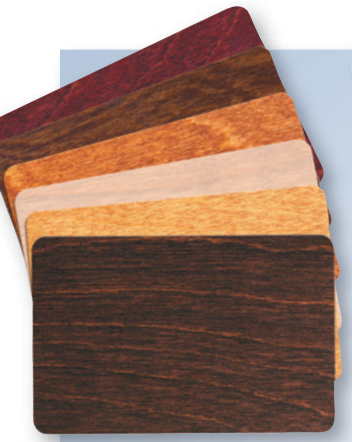
The manufacturer will engineer unique project requirements such as integrating wall conditions, frame anchorages and glass types.

The chart below lists the most frequently used metal fixed window systems. Please consult Memtech Acoustics for all available models and for custom designed systems.



Sound-Retardant Metal Fixed Window Systems

Physical Characteristics and Certified Test Performance per ASTM E90 and E413								Window Test Performance Characteristics per ASTM E90 and E413																	
								Transmission Loss in dB/Hertz - 1/3 Octave Bands																	
STC	Model Number	Minimum Frame Depth	Weight Lbs./ sq. ft. (kg/m²)	Area of Tested Unit	Glass Type and Thickness	Type of Glazing	U.L. Fire Labels	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	STC
37	379229	5-1/2" (140 mm)	11.2 (54.7)	22.3 ft.² (2.7 m²)	1/2" (13 mm) Lam.	Neoprene	NA	35	30	29	29	32	31	33	34	36	37	37	33	36	40	43	46	49	51	37
42	4292276	5-1/2" (140 mm)	17.3 (84.5)	21 ft² (1.95 m²)	3/4" (19 mm) Lam.	Zipper	NA	32	33	35	35	34	36	38	39	39	38	37	41	46	49	52	54	56	58	42
52	5292272	8" (203 mm)	12.5 (61.5)	21 ft² (1.95 m²)	1/4" (6 mm) Lam. 1/4" (6 mm) Lam.	Neoprene	C	28	37	32	37	39	43	46	50	52	55	56	58	60	61	61	63	66	68	52
54	549226	8" (203 mm)	23 (112.3)	22.3 ft² (2.7 m²)	1/2" (13 mm) Lam. 3/4" (19 mm) Lam.	Neoprene	NA	36	38	38	41	43	44	49	50	52	54	55	57	60	61	63	65	67	67	54
55	5592278	8-5/8" (219 mm)	26.8 (130.8)	21 ft² (1.95 m²)	1/2" (13 mm) Lam. 3/4" (19 mm) Lam.	Zipper	NA	41	40	41	42	43	46	50	51	53	56	57	58	60	62	66	68	70	71	55
52	529508	8-5/8" (219 mm)	33.67 (152)	21 ft² (1.95m²)	1/4" Lam. 2 1/8" UL Level 4 BR. Glass	Neoprene	NA	38	42	43	45	46	40	49	54	60	63	64	66	68	69	71	75	78	79	52
55	559511	8-5/8" (219 mm)	20.1 (110.7)	21 ft² (1.95m²)	1/4" Lam. 1 3/16" UL Level1 BR. Glass	Neoprene	NA	32	42	41	41	46	43	46	48	55	61	63	66	67	69	73	75	79	79	55





Wood and Plastic Laminate Swinging Doors

We offer a complete line of Wood and Plastic Laminate Doors that are lightweight, available with positive pressure UL fire ratings, and are lead and asbestos free.

Acoustic Wood Doors are available in traditional wood veneers and decorator colors, plus exotic veneers and custom and opaque colors. Durable, easy to maintain plastic laminates are available in traditional and exotic wood veneers, plus endless color choices and patterns, individual designs and custom graphics

Wood and Plastic Laminate Swinging Doors have STC ratings from 41 to 49. Doors are provided with metal framing systems and are intended for interior use only. Sizes available include up to 4' x 8' singles and 8' x 8' pairs. All Single Swing Wood and Plastic Laminate Doors are available with 3/4 hour and 20 minute Fire Labels. These Fire Labels meet both UL10B (neutral pressure) and UL10C/UBC 7-2 (positive pressure) requirements.



Acoustical Test Results

Physical Characteristics and Certified Test Performance per ASTM E90 and E413										Door Test Performance Characteristics per ASTM E90 and E413																			
										Transmission Loss in dB/Hertz – 1/3 Octave Bands																			
STC	Model Number	Maximum Glass Area	Weight Lbs./ sq. ft (kg/m²)	Hardware		Frame Seal Type Type	Door Bottom Seal	UL Fire Labels	Notes	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	STC
				Hinges	Lockset																							
41	419719	300 sq. in. (1935 sq.cm)	8.9 (43.4)	Standard	mortise or cylindrical	Double Bubble	Threshold	3/4 hr.	1,3,4	30	27	31	30	31	36	40	41	41	41	40	41	43	43	42	43	47	49	41
44	449718	300 sq. in. (1935 sq.cm)	9.8 (47.9)	Standard	mortise or cylindrical	Double Bubble	Threshold	3/4 hr.	1,3,4	28	29	32	30	31	37	42	45	46	44	42	42	45	46	48	49	51	52	44
46	4696241	consult Memtech	7.9 (38.6)	Standard	mortise or cylindrical	Double Bubble	Threshold	3/4 hr.	1,3	25	25	30	33	36	41	40	42	47	47	48	49	50	50	50	51	52	55	46
47	479725	consult Memtech	7.7 (37.6)	Standard	mortise or cylindrical	Double Bubble	Full Mortise Automatic	3/4 hr.	1,3	27	27	33	37	38	38	40	45	48	48	50	51	50	50	49	50	52	55	47
49	499723	consult Memtech	9.3 (45.4)	Cam-lifts MCL-500	mortise or cylindrical	Single H	Super H	3/4 hr.	1,2,3	32	32	38	37	41	44	42	44	46	48	51	53	55	57	57	56	56	56	49

Notes:

(1) Doors are tested as fully operable 3'-0" x 7'-0" (914 mm x 2134 mm) single doors as specified by Standard ASTM E90. Pairs of doors are fitted with additional gasketing at meeting stiles and variation in

(2) All Cam-Lift hinges are of proprietary design and manufacture and are supplied with the doors. Model MCL-500 hinge is a full mortise template stainless steel hinge.

(3) All seals are supplied as part of the operating system.

(4) When a vision light and fire label are required, a maximum glass area of 1,296 sq. in. is permitted.

The manufacturer's complete Product Binder is available to provide detailed information on each of its product lines. These product lines include the following Specialty Door and Fixed Window Systems:

- Wood and Plastic Laminate Acoustic Doors
- Blast
- Security
- Bullet-Resistant
- Watertight/Airtight
- Radiation Shielding

The detailed product information includes:

- Monographs
- Drawing Cut Sheets
- Long Form Specifications
- Installation Instructions

For copies of any of the information listed above, please contact Memtech Acoustics.



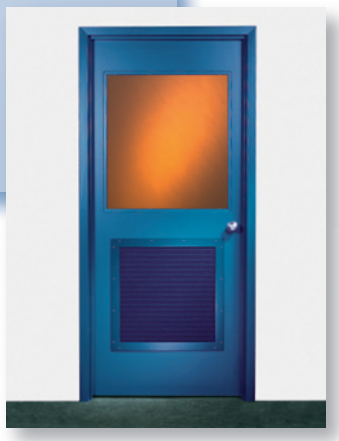
Other Products

Tiger Door: The world's finest fiberglass reinforced plastic and composite doors and frames



For more than 30 years, Tiger Door has been in the forefront of research and development in the field of Fiberglass Reinforced Plastic (FRP) products. The result is the finest FRP products in the marketplace - the unanimous choice of demanding architects, designers, owners and contractors worldwide.

For complete information about the FRP product line, including cut sheets, specifications, wall anchorage and glazing details, and installation instructions, contact Memtech Acoustics.



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Product information from the manufacturer's 2007 catalog.