

# FIRE & SOUND MANUAL

Underlayments at 3500 psi and Below	Underlayments Above 3500 psi	<b>Sound Mats</b>
Evaluation Report R8477	Evaluation Report R8477	Evaluation Report R8477
MAXXON STANDARD  • Gyp-Crete®  • Gyp-Crete 2000®  • Therma-Floor®  • Rapid Floor®  • Rapid Floor Plus®	MAXXON HIGH STRENGTH  Dura-Cap®  Dek C-Ment®  Level Right®  Commercial Topping®  Level EZ®  Gyp-Crete EZ®	ENCAPSULATED SOUND MAT     ● All Acousti-Mats®     ◆ Acousti-Top®     ● Maxxon SDF

NOTE REGARDING CANADIAN PROJECTS: Canada accepts all UL Fire Designs listed in this manual. For additional information on Canadian Fire Designs, refer to page 10.

DISCLAIMER: For complete assembly information for a specific fire design, click on the UL number or visit Underwriters' Laboratories website. While the assemblies of the sound tests were constructed to best represent the most commonly built version of the UL fire design, some variances in construction may have occurred (i.e. within a particular UL rating there can be the allowances for different joist spacing and joist depths, different thicknesses and types of insulation or even no insulation, different types of channel, etc). The sound tests are a representation of what can be expected for sound control ratings when building a floor/ceiling assembly with a specific floor joist assembly that relates to a UL fire design using the designated sound control mat. However, due to the many variables beyond our control (for example quality control of drywall installation, type of resilient channel, density and selection of other building materials, flanking paths, etc.), the sound tests in this resource should not be considered a guarantee of performance. For this same reasoning and the fact that the sound tests were run in different buildings, different laboratories, and different environments, this data can be used for comparison and design evaluation but should not be considered a guarantee of performance. All acoustical testing was done by Architectural Testing; Riverbank Testing Laboratories; Intest, Inc.; Intertek Laboratories; Twin City Testing Corporation; D.L. Adams Associates, L.T.D.; Veneklasen Associates; or Stewart Acoustical Consultants. For assistance determining the right system and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.



# PARALLEL CHORD TRUSS 1 HOUR FIRE DESIGNS

		D. diam.		Min.				Sound Rating STC** IIC Test Number		M III P.	C::l_					
Truss Depth	Insulation	Resilient Channel	Drywall	Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Maxxon UL Fire Ratings	Similaı ULs					
						Bare	58	35	H6130.01							
					None	LVT		41	H6130.02							
						Carpet & Pad		71	10101.02							
				3/4" (19 mm)		Sheet Vinyl		52	10101.09							
				(17 11111)	1	LVT	58	50	10101.07							
					Acousti-Mat 1/8	Ceramic Tile		52	10101.30							
						Carpet and Pad		72	10101.11							
						Sheet Vinyl	59	54	10106.20							
						LVT		53	10106.18	_						
					Acousti-Mat 1/4	Ceramic Tile		55	10106.24							
						Engineered Wood		55	10106.21	L528						
						Carpet and Pad		71	10106.22	L529						
						Sheet Vinyl		55	10101.17	L534 L546						
					LVT	59	54	10101.15	L542							
					Acousti-Mat 1/4 Premium	Ceramic Tile		55	10101.21	L558 L562						
						Premium _	Engineered Wood		55	10101.18	L563 L574					
			5/8"	]"		Carpet and Pad		76	10101.19	L574 L576						
				(25 mm)		Sheet Vinyl		56	10106.28	L577 L579	L52					
18"	Yes	Yes	(16 mm)					LVT	59	55	10106.26	L581	L55			
								Acousti-Mat 3/8	Ceramic Tile		57	10106.32	L583 L585			
					necessi mai oy o		,	,	,	,	Engineered Wood		56	10107.05	L592	
													Carpet and Pad		75	10106.30
						LVT	59	57	10107.27	M508						
					Acousti-Mat 3/8	Ceramic Tile		58	10107.32	M510 ICC ESR #2540						
					Premium	Engineered Wood		58	10107.29	UL ER #8477-01						
						Carpet and Pad		79	10107.30							
						Sheet Vinyl		57	10101.25							
						LVT	59	56	10101.23							
					Acousti-Mat 3/4	Ceramic Tile		59	10101.29							
						Engineered Wood		57	10101.26							
		1-1/2"		Carpet and Pad		77	10101.27									
		(38 mm)		Sheet Vinyl	58	58	10107.20									
						LVT	30	59	10107.19							
					Acousti-Mat 3/4	Ceramic Tile		60	10107.24							
					Premium	Engineered Wood		60	10107.21							
						Carpet and Pad		79	10107.22							

Other Parallel Chord Truss ULs: For special assemblies and other burn ratings including 2 hr designs, additional Parallel Chord Truss UL Fire Ratings exist. Refer to page 10 for a list of these assemblies. The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system and UL Fire Rating for your project, contact your Maixon Regional Representative at (800) 356-7887.



## I-JOIST 1 HOUR FIRE DESIGNS

		n de c		_ Min.				Sound	Rating	
Truss Depth	Insulation	Resilient Channel	Drywall	Min. Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Maxxon UL Fire Ratings
						Bare	58		TL 96-250	
1.48					.,	Bare		29	IN 86-1	-
14"					None	Sheet Vinyl		40	IN 86-2	
						Carpet and Pad		70	IN 86-6	-
				3/4" (19 mm)		Sheet Vinyl	57	50	10108.09	
				(17 11111)		LVT		52	10110.18	
					Acousti-Mat 1/8	Ceramic Tile		50	10110.24	
						Engineered Wood		51	10108.10	
						Carpet and Pad		77	10110.22	
						Sheet Vinyl	58 55 10109.20			
					Acousti-Mat 1/4  Acousti-Mat 1/4  Premium	LVT		54	10109.18	
						Ceramic Tile		56	10109.24	L518
						Engineered Wood		56	10109.21	L530
						Carpet and Pad		81	10109.22	L547 L570
						Sheet Vinyl	59	55	10108.33	L581
							LVT		55	10108.32
	,,		2 Layers			Ceramic Tile		57	10108.37	M502
	Yes	Yes	5/8" (16 mm)				Engineered Wood		56	10108.34
1011				]"		Carpet and Pad		83	10108.35	WH J20050694 ICC ESR 1141
12"				(25 mm)		Sheet Vinyl	58	56	10110.12	ICC ESR 1153
						LVT		55	10110.10	ICC ESR 1305 ICC ESR 1336
					Acousti-Mat 3/8	Ceramic Tile		59	10110.16	ICC ESR 2994
						Engineered Wood		58	10110.13	UL ER 8477
						Carpet and Pad		77	10110.14	-
						Sheet Vinyl	61	59	10110.28	
						LVT		57	10110.26	
					Acousti-Mat 3/8 Premium	Ceramic Tile		60	10110.32	
					Tionnom	Engineered Wood		59	10110.29	
						Carpet and Pad		84	10110.30	
						Sheet Vinyl	60	58	10108.25	
						LVT		57	10108.24	
				1-1/2" (38 mm)	Acousti-Mat 3/4	Ceramic Tile		59	10108.29	
				(00 11111)		Engineered Wood		59	10108.26	
						Carpet and Pad		79	10108.27	

Other I-Joist ULs: For special assemblies and other burn ratings, additional I-Joist UL Fire Ratings exist. Refer to page 10 for a list of these assemblies. The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.



# 2X10 WOOD JOIST 1 HOUR FIRE DESIGNS

Min. Truss		Resilient						Sound	Rating	Maxxon UL
Depth per UL	Insulation	Channel	Drywall	Min. Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Fire Ratings
						None	56		10111.01	L006 L522
						Sheet Vinyl		44	D8457.19	L201 L523 L202 L525 L206 L526
				3/4" (19 mm)	None	LVT		35	D8457.06	L209 L533 L210 L535
						Ceramic Tile		29	D8457.01	L211 L536 L212 L537 L501 L539
						Carpet and Pad		56	IN 81-6	L502 L540 L503 L541
10"	Yes	Yes	5/8" (16 mm)			Sheet Vinyl	57	51	10112.20	L504 L545 L505 L556 L506 L557
						LVT		51	10112.19	L507 L569 L509 L581
				]"		Ceramic Tile		52	10112.24	L510 L583 L511 L588 L512 L590
				(25 mm)	Acousti-Mat 1/4	Engineered Wood		51	10112.21	L513 L593 L514 M514
						Carpet and Pad		73	10112.22	L515 M517 L516 M518 L517 M519 L519 M530 L520 M531

Other 2x10 Uls: For special assemblies and other burn ratings including 2 hr designs, additional 2x10 Wood Joist UL Fire Ratings exist. Refer to page 10 for a list of these assemblies. The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.



## OLD TIMBER

		Resilient		Min. Topping				Sound F	Rating
Truss/Joists	Insulation	Channel	Drywall	Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number
				N/A	None	None	30 FSTC		3018-02-31573.7
				N/A	Notic	Notic		33 FIIC	3018-02-31573.5
						Tile	47 FSTC		3018-02-31573.6
Dimensional				1-1/2"	Acousti-Mat 3/4	Engineered Wood on Pad		52 FIIC	3018-02-31573.4
Lumber	No	No	N/A	(38 mm)		Vinyl		46 FIIC	3018-02-31573.3
					Acousti-Mat 3/4 & Acousti-Mat SBR	Cementitious Overlayment	52 FSTC	51 FIIC	30160-04-62432
				3" concrete (76 mm)	Acousti-Mat 3/4 Premium	Exposed Concrete		47 FIIC	D7299.02-13

The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system for your project, contact your Maxxon Regional Representative at (800) 356-7887.



## CONCRETE 1, 2, AND 3 HOUR FIRE DESIGNS

Concrete		Resilient	Sucponded		Min. Topping				Sound	Rating	Maxxon UL					
Depth	Insulation	Channel	Suspended Ceiling	Drywall	Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Fire Ratings					
4"	No	No	No	None	1" (25 mm)	Acousti-Mat 1/4	Concrete Micro-Topping		50 FIIC	30160-03-57761	J804					
4	NO	NO	NO	None	2" (51 mm)	Acousti-Mat 3/4	Concrete Micro-Topping		59 FIIC	30160-03-57761	J805					
							LVT	52	52	H8289.01						
6"	No	No	No	No	N/A	Acousti-Top	LVI		ΔIIC 22	H8289.01						
							Tile		ΔIIC 19	7018019						
					N/A None		None	62 FSTC		18-0-0607.1						
					N/A	Notic	Notie		39 FIIC	18-0-0607.3						
											LVT	62 FSTC		18-0-0607.2		
					]"	Acousti-Mat 1/4	LVI		64 FIIC	18-0-0607.5						
			No	None	None	None	None	None	None	(25 mm)	ACOUSTIMUL 1/4	Hardwood		60 FIIC	18-0-0607.7	
							Tile		61 FIIC	18-0-0607.6						
								1-1/2" (38 mm)	Acousti-Mat 3/8	Tile		65 FIIC	30160-03-72550-7	N/A†		
					1-1/2 (30 111111)		Tile		70 FIIC	30160-05-72550-9	,					
8"	No	No								2" Concrete (51 mm)	Acousti-Mat 3/4	None		61 FIIC	30160-03-56381-5	
					NI /A	None	None	62 FSTC		30160-06-77973-1						
					N/A	None	None		42 FIIC	30160-06-77973-2						
					1/2"	Acousti-Top	Hardwood		60 FIIC	30160-06-77870						
			Yes	5/8" (16 mm)	(13 mm)	Acousti-top	Tile		54 FIIC	30160-06-77870						
				(12)	1" (25 mm)	Acousti-Mat 1/4	Tile		60 FIIC	30160-05-67282-2						
										1-1/2" (38 mm)	Acousti-Mat 3/8	Tile		66 FIIC	30160-05-67282-1	
					1-1/2 (30 111111)	Acousti-Mat 3/4	Tile		74 F-IIC	30160-05-67282-3						

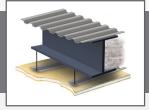
<sup>†</sup> Fire Ratings over 6"+ concrete do not require gypsum concrete. The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.



# STEEL JOIST/PLYWOOD SUBFLOOR 1 HOUR FIRE DESIGNS

		Resilient						Sc	ound Rating	Maxxon UL										
Subfloor	Insulation	Channel	Drywall	Min. Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Fire Ratings										
						Counct O Dad	51 FSTC		4140-94-2168.1											
					None	Carpet & Pad		73 FIIC	4140-94-2168.2											
						LVT		49 FIIC	4140-94-2278											
				3/4" (19 mm)		None	58 FSTC		CRA-iSpan-10											
				(17 1111)	A: Mart 1 /0	Hardwood		55 FIIC	CRA-iSpan-7											
					Acousti-Mat 1/8	Tile		49 FIIC	CRA-iSpan-8											
		Yes	5/8" (16 mm)			Vinyl		53 FIIC	CRA-iSpan-11	L527										
3/4" T&G Plywood	Yes		(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)	(16 mm)			None	59 FSTC		CRA-iSpan-14	L564 L567
11741000									1" (25 mm)	Acousti-Mat 1/4	LVT		53 FIIC	CRA-iSpan-13	L573					
				(23 mm)		Vinyl		52 FIIC	CRA-iSpan-15											
											Tile		57 FIIC	FIIC 04-22-1						
		ı						1-1/2" (38 mm)	Acousti-Mat 3/4	Vinyl		57 FIIC	FIIC 04-22-2							
				(38 mm)		Hardwood		58 FIIC	FIIC 04-22-3											
		4 .: Cl:	2 layers 5/8"	]"	1 :11 : 1 /4	Tile		56 FIIC	06-24-1											
		Acoustic Clips	(2 x 16 mm)		(25 mm)	Acousti-Mat 1/4	Carpet & Pad		71 FIIC	06-24-2										

The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.



# COMPOSITE STEEL/ CONCRETE FLOOR CEILING ASSEMBLIES

Concrete								So	ound Rating	Maxxon UL
Depth	Insulation	Ceiling	Drywall	Min. Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Fire Ratings
3½" Concrete over Steel Deck	No	Hat Channel Attached to Joist	5/8" (16 mm)	None	None	None	57	28	TL 01-213, IN 01-8	
3" Concrete		Wire Hung	5/8" (16 mm)	None	None	None	55	47	3193995CRT-001.8	G561
over 9/16" Corrugated	Yes	Grid 17½" Airspace	Drywall	None	Acousti-Top	Engineered Wood		64	3193995CRT-001.5	
Steel Deck		Deck to Ceiling	5/8" (16 mm) Ceiling Tile	None	Acousti-Top	Engineered Wood		62	3193995CRT-001.28	
01/# 1:- :-		Wire Hung		None	Acousti-Top	Tile		66 FIIC	NAC Centerpoint	
2½" Lightweight Concrete over	Yes	Grid 34" Airspace	5/8" (16 mm)	3/8" (10 mm)	Acousti-Top	Engineered Wood		64 FIIC	NAC Centerpoint	D502
Steel Deck		Deck to Ceiling		1" (25 mm)	Acousti-Mat 1/4	Engineered Wood		64 FIIC	NAC Centerpoint	



## STEEL TRUSS/STEEL DECK 1 AND 2 HOUR FIRE DESIGNS

		Resilient		Min.				Soun	d Rating	Maxxon UL Fire	Similar
Subfloor	Insulation	Channel	Drywall	Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Ratings	ULs
					Nama	Bare	56	39	10115.01		
					None	Carpet and Pad		73	10115.02		
				3/4"		Sheet Vinyl	56	51	10117.04		
				(19 mm)	A	LVT		51	10117.03		
					Acousti-Mat 1/8	Engineered Wood		52	10117.05	G551†	
						Carpet and Pad		73	10117.06	G553† G560†	
						Sheet Vinyl		53	10114.04	G563† G566†	G564 G577
Ct. I D. I	V	Yes	2 layers 5/8"			LVT	56	52	10114.02	G574†	G578
Steel Deck	Yes	res	(2 x 16 mm)		Acousti-Mat 1/4	Ceramic Tile		55	10114.08	G587 G592	G579 G580
						Engineered Wood		54	10114.05	G597 H502	G581 G582
				]"		Carpet and Pad		82	10114.06	M511 ICC ESR#2540†	
				(25 mm)		Sheet Vinyl		53	10115.10	ULER#8477-01†	
						LVT	56	53	10115.09		
					Acousti-Mat 3/8	Ceramic Tile		56	10115.14		
						Engineered Wood		55	10115.11		
						Carpet and Pad		80	10115.12		

 $<sup>^{\</sup>dagger}$  See UL for specific design detail difference between ratings.

The sound tests above are examples of the many sound tests we have on file. Please refer to the disclaimer on the cover of this guide. For assistance determining the right system and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.



## PRECAST CONCRETE 1, 2, AND 3 HOUR FIRE DESIGNS

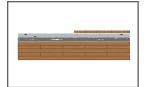
Concrete		Resilient	Suspended						Sound	Rating	Maxxon UL Fire						
Depth	Insulation	Channel	Ceiling	Drywall	Min. Topping Depth	Sound Mat	Floor Covering*	STC**	IIC	Test Number	Ratings						
6"	Yes	Yes	Yes	5/8"	]"	Acousti-Mat 1/4	Tile	59		TL98-108							
0	162	162	Tes	(16 mm)	(25 mm)	ACOUSTI-MULT/4	Tile		57	IN98-12							
					1/2"	Nama	None	58 FSTC		5-896	J917						
					(13 mm)	None	Carpet		75 FIIC	5-896-2	J917 J919						
						None	None		18 FIIC	B2863.13	Ј920 Ј924						
					3/4"		Tile		54 FIIC	B2863.04	J927						
					(19 mm)	Acousti-Mat 1/8	LVT		56 FIIC	B2863.05	Ј931 Ј957						
8"	No	No	No	None			Engineered Wood		58 FIIC	B2863.06	J958						
							None	61 FSTC		B5011.04	Ј991 Ј994						
												Acousti-Mat 1/4	Tile		59 FIIC	B5011.04	ICC ESR # 2540
					1" (25 mm)		LVT		57 FIIC	B5011.04	UL ER # 8477-01						
					(23 11111)	Acqueti Mat 2 /0	Tile		61 FIIC	B2863.07							
						Acousti-Mat 3/8	Wood		61 FIIC	B2863.09							

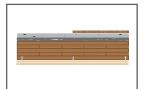
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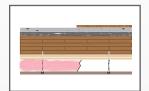


## MASS TIMBER (CLT)

#### CLT \_\_\_



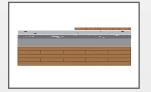




CIT .	C.:1:	C	D. Hara		Encapsulated		rl		Sound	Rating	Maxxon
CLT Assembly	Ceiling Configuration	Gypsum Pour (in)	Resilient Channel	Insulation	Encapsulated Mat	Topical Mat	Floor Covering*	STC**	IIC	Test Number	UL Fire Ratings
		2"				None	Bare Gypsum	52	38	G2463.01	
	EXPOSED Exposed CLT	(51 mm)	None	n/a	Acousti-Mat 3/8 Premium	2 mm Armstrong Pad	LVT		51	G2463.08	
	Exposed CLI	2"			Acousti-Mat	None	Bare Concrete	52	46	K1276.01	
		(51 mm) †			3/4 Premium + Acousti-Mat SBR	Acousti-Top	LVT on Concrete		52	K1276.02	
							Bare Gypsum	52	46	K1279.01	
	DRYWAII DIRFCT	1" (25 mm)	None	n/a	Acousti-Mat 3/8 Premium	None	LVT		48	K1279.02	
	DRYWALL DIRECT 2 Layers 5/8" (16mm) directly						Engineered Wood		47	K1279.04	
5-ply (7")	applied to CLT	2"	None		Acousti-Mat 3/4 Premium +	None	Bare Concrete	59	52	K1277.01	L901 M533
		(51 mm)†	None	n/a	Acousti-Mat SBR	Acousti-Top	LVT on Concrete		55	K1277.02	
							Bare Gypsum	59	51	K1278.01	
	<u>SUSPENDED</u>	0.75" (19 mm)		No	Acousti-Mat 1/8 None		LVT		54	K1278.02	
	CEILING 2 Layers 5/8" (16mm) directly applied to CLT + 1 layer 5/8" (16 mm) hung		Wire Hung, Armstrong				Engineered Wood		55	K1278.04	
			IIC Clip + 6" Air Space	·			Bare Gypsum	63	60	K1279.05	
			- 1 space	Yes	Acousti-Mat 3/8 Premium		LVT		63	K1279.06	
								Engineered Wood		62	K1279.08

 $<sup>^{\</sup>dagger}$  Normal-weight concrete topping slab.

## CLT COMPOSITE \_\_\_\_\_

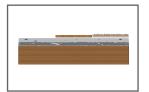


CUT	Ceiling	Gypsum	Resilient		Encapsulated	Topical	Floor		Sound	Rating										
Assembly	Configuration	Pour (in)	Channel	Insulation	Mat	Mat	Covering*	STC**	IIC	Test Number										
		1" (25mm)	None	n/a	Acousti-Mat 3/8	None	Bare Gypsum	52	50	K3094.97										
5.4" 5-ply + 2.25"		1 (2311111)	None	n/a	ACOUSII-MUI 3/0	Notice	Engineered Wood		52	K3094.69										
Concrete Composite	Composite CLT	1-1/2"	,	/	/	, ,	, ,	, ,	1-1/2"	1-1/2"	1-1/2"	/	None	n/a	Acousti-Mat 3/4 Premium +	None	Bare Gypsum	56	57	K3094.98
		(38mm) None		n/a	Acousti-Mat SBR	Acousti-Top	Engineered Wood		61	K4507.06										

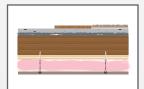
<sup>\*</sup>Contact Maxxon for specific brand, thickness, and installation details. \*\* All tested assemblies will achieve a minimum of the published result. Specific STC value of the tested assembly listed in the corresponding sound test.



## VLT \_\_\_\_\_







CLT	Ceiling	Gypsum	Resilient		Encapsulated	Topical	Floor	Sound Rating		
Assembly	Configuration	Pour (in)	Channel	Insulation	Mat	Mat	Covering*	STC**	IIC	Test Number
						None	Bare Gypsum		41	L3827.03
							Engineered Wood	52	48	L3827.08
					Acousti-Mat 3/8 Premium		LVT		45	L3827.04
					11011110111	Acousti-Top	LVT		49	L3827.05
						None	Carpet and Pad		83	L3827.10
	EXPOSED Exposed VLT	2" (51 mm)	None	n/a		None	Bare Gypsum		49	L3827.55
		(5 :)				None	Engineered Wood		53	L3827.60
					Acousti-Mat 3/4 Premium +	Acousti-Top	Engineered Wood	57	54	L3827.61
					Acousti-Mat SBR	None	LVT		52	L3827.56
						Acousti-Top	LVT		54	L3827.57
						None	Carpet and Pad		79	L3827.62
							Bare Gypsum		43	L3827.11
						None	Engineered Wood		48	L3827.16
					Acousti-Mat 3/8 Premium		LVT		46	L3827.12
						Acousti-Top	LVT	52	50	L3827.13
	DRYWALL DIRECT	011				None	Carpet and Pad		83	L3827.18
	2 Layers 5/8" (16mm) directly	2" (51 mm)†	None	n/a	Acousti-Mat 3/4 Premium + Acousti-Mat SBR	None	Bare Gypsum		51	L3827.63
	applied to VLT						LVT		54	L3827.64
						Acousti-Top	LVT		56	L3827.65
						None	Engineered Wood	58	53	L3827.68
6-3/8"						Acousti-Top	Engineered Wood		55	L3827.69
						None	Carpet and Pad		79	L3827.70
		1" (25mm)	Wire Hung,	No		None	Bare Gypsum	58	51	L3827.37
					Acousti-Mat 1/8		Engineered Wood		54	L3827.39
							LVT		53	L3827.38
					Acousti-Mat 3/8 Premium	None	Bare Gypsum		58	L3827.19
							Engineered Wood	62	59	L3827.23
		2"					LVT		59	L3827.20
		(51mm)			Acousti-Mat 3/4 Premium + Acousti-Mat SBR		Bare Gypsum	61	60	L3827.71
	SUSPENDED CEILING						Engineered Wood		62	L3827.73
	2 Layers 5/8" (16mm) directly applied to VLT		Armstrong IIC Clip				LVT		62	L3827.72
	+ 1 layer 5/8"	]"	+ 6" Air Space				Bare Gypsum	60	61	L3827.45
	(16 mm) hung	(25mm)	o All Spuce		Acousti-Mat 1/8	None	Engineered Wood		64	L3827.47
							LVT		64	L3827.46
				,,	Acousti-Mat 3/8		Bare Gypsum	61	61	L3827.27
				Yes	Premium	None	Engineered Wood		63	L3827.31
		2" (51mm)					LVT		64	L3827.28
		(31/1111)			Acousti-Mat		Bare Gypsum	62	64	L3827.79
					3/4 Premium + Acousti-Mat SBR	None	Engineered Wood		65	L3827.81
							LVT		66	L3827.80



## MASS TIMBER DOWEL LAMINATED TIMBER (DLT)

## DLT \_\_\_\_\_





DLT	Ceiling	Gypsum	Resilient		Encanculated	Encapsulated Mat Topical Mat	Floor	Sound Rating		
Assembly	Configuration	Pour (in)	Channel	Insulation			Covering*	STC**	IIC	Test Number
	EXPOSED Exposed DLT  1-1/2" (38 mm)  DRYWALL DIRECT 2 Layers 5/8" (16mm) directly applied to DLT					Bare Gypsum	54	45	K1274.01	
		exposed DLT 1-1/2"	None	n/a	n/a Acousti-Mat 3/8 Premium	None	LVT		47	K1274.02
6"							Engineered Wood		47	K1274.04
		(38 mm)  DRYWALL DIRECT 2 Layers 5/8" (16mm) directly					Bare Gypsum	56	47	K1275.01
							LVT		49	K1275.02
						Engineered Wood		49	K1275.04	

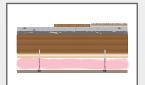


#### MASS TIMBER MASS PLYWOOD PANEL (MPP)

#### MPP \_\_\_\_\_







MDD	Cathan	C	Desiliena		Encapsulated		rl	Sound Rating			
MPP Assembly	Ceiling Configuration	Gypsum Pour (in)	Resilient Channel	Insulation	Mat	Topical Mat	Floor Covering*	STC**	IIC	Test Number	
	EXPOSED			n/a	Acousti-Mat 3/4 Premium	None	Bare Gypsum	54	41	K1283.00A	
	Exposed MPP					Acousti-Top	LVT		44	K1283.01	
	DRYWALL DIRECT 2 Layers 5/8"		None	No		None	Bare Gypsum	54	44	K1283.00B	
	(16mm) directly applied to MPP	1-1/2" (38 mm)				Acousti-Top	LVT		46	K1283.02	
5"	<u>SUSPENDED</u> CEILING			(30 111111)			i leililoili	None	Bare Gypsum	61	52
	2 Layers 5/8"		Wire Hung, Armstrong IIC Clip	No		None	LVT		55	K1283.04	
	applied to MPP + 1 layer 5/8" (16 mm) hung		+ 6" Air Space			None	Engineered Wood		55	K1283.06	
	<u>EXPOSED</u>	2"	None	n/a	Acousti-Mat 3/4 Premium +	None	Bare Concrete	57	47	K1282.01	
	Exposed MPP (51 mm)† None		"/"	Acousti-Mat SBR	Acousti-Top	LVT on Concrete		51	K1282.02		

<sup>†</sup> Normal-weight concrete topping slab.

## MISCELLANEOUS UL FIRE DESIGNS

#### PARALLEL CHORD TRUSS

UL#	Unique Assembly Details
L529	Suspended Ceiling
L542	Furring Channels/Drywall Screwed Direct
L556	2HR/4 Layers of Drywall
L577	2HR/3 Layers of Drywall
L581	Kinetics ICW Clip, Batt Insulation, 2 Layers 5/8" Gypsum Board
L583	Kinetics Isomax Clip, Batt Insulation, 2 Layers of 5/8" Gypsum Board
M500	2HR/3+ Layers of Drywall
M510	2HR/3 Layers of Drywall - 1 Layer Screwed Direct

#### 2X10

UL#	Unique Assembly Details
M504	0.75 HR/Drywall Screwed Direct
M514	Sound Break Gypsum Board from National Gypsum
L581	Kinetics ICW Clip, Batt Insulation, 2 Layers 5/8" Gypsum Board
L583	Kinetics Isomax Clip, Batt Insulation, 2 Layers of 5/8" Gypsum Board

#### **ULC DESIGN**

#	Hour Rating	Type of Construction
1530	1.5, 2	TotalJoist by iSPAN®
L003	1	2" x 10" Wood Joist
L201	1	2" x 10" Wood Joist
L511	2	2" x 10" Wood Joist
L512	1	2" x 10" Wood Joist (Commercial Construction Only)
M500	1	2" x 10" Wood Joist
M501	1	2" x 10" Wood Joist
M503	2	2" x 10" Wood Joist
M514	2	Parallel Chord Truss or Steel Frame
M520	1	TotalJoist by iSPAN®
M521	1	TotalJoist by iSPAN®

Canada also accepts all UL Fire Designs listed in this manual. For verification of a UL Fire Design for Canada, refer to the UL Environment document CCOX7.R8477 "Floor- and Roof-topping Mixtures Certified for Canada", which can be obtained by contacting your Maxxon Regional Representative or at www.ul.com.

#### I-JOIST

UL#	Unique Assembly Details
L518	TJL®/Resilient Channel
L530	TJI® /Simpson Strong Clips
L538	2HR/3 Layers of Drywall
L547	TJI®/Resilient Channel
L556	2HR/Wilamette I Beam Truss/4 Layers of Drywall
L581	Kinetics ICW Clip, Batt Insulation, 2 Layers 5/8" Gypsum Board
L583	Kinetics Isomax Clip, Batt Insulation, 2 Layers of 5/8" Gypsum Board

#### STEEL JOIST

UL#	Steel Joist Manufacturer
G230	2HR/Midcon MetalEdge concrete T&G plank
G516	2HR/Midcon MetalEdge concrete T&G plank
G592	1, 2HR/Plycem Board
H502	1, 1½, 2HR/Plycem Board

For assistance determining the right systems and UL Fire Rating for your project, contact your Maxxon Regional Representative at (800) 356-7887.







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