



Sound & Fire Assemblies Handbook





Overview

This handbook is intended to provide general information regarding assemblies that have been evaluated for fire-resistance and/or for acoustical attenuation performance. The assemblies presented in this handbook feature EXACOR™ panels installed as part of an assembly of materials and tested and evaluated in accordance with the following standards:

Fire-Resistance Testing

- ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials / ANSI UL 263 Fire Tests of Building Construction and Materials

Sound Assembly Testing

- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions
- ASTM E413 Classification for Rating Sound Insulation
- ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
- ASTM E989 Classification for Determination of Impact Insulation Class
- ASTM E2235 Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods
- ASTM 3222 Standard Classification for Determination of High-Frequency Impact Sound Ratings

The information presented in this handbook is for guidance and reference only. Please refer to the applicable fire-resistance rated assembly published by Underwriter's Laboratory (UL) for full assembly details, requirements and options. Many UL fire-resistance rated assemblies contain multiple material and installation options that may have an impact on sound performance. Not all of the available options in each UL design listing have been tested for STC/IIC ratings. Please see the sound assembly details for more information.

Please note that this handbook also includes sounds assemblies that have NOT been evaluated for fire-resistance. The level of fire-resistance (if any) for each assembly is presented at the top of the page for each assembly configuration. Follow all local building code requirements for fire-resistance and sound insulation.

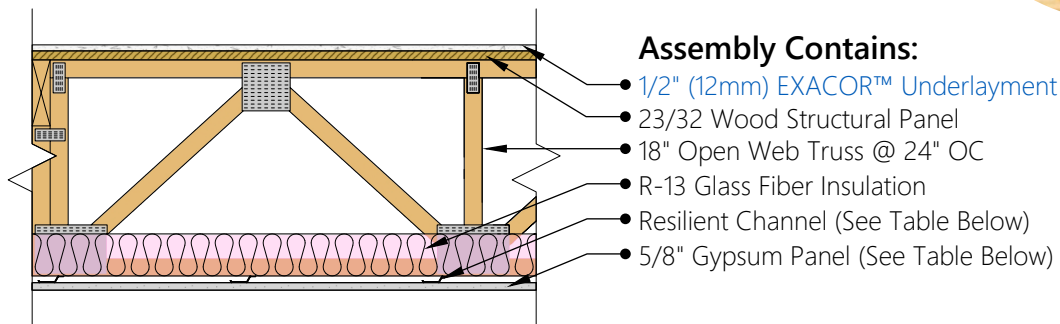
Each assembly presents information for a "Bare" assembly. This information is meant to present the base level of performance for the given assembly without floor coverings. EXACOR™ panels should always be covered by an appropriate finished floor covering. Please see the EXACOR™ Subfloor Installation Manual and EXACOR™ Underlayment Installation Manual available at www.exacor.com for more information.

EXACOR™ UNDERLAYMENT

Floor/Ceiling Assembly

Rating:	1hr Fire-Resistance
Design No.:	UL L528 - System No. 22

See applicable UL Design for full assembly details and requirements.



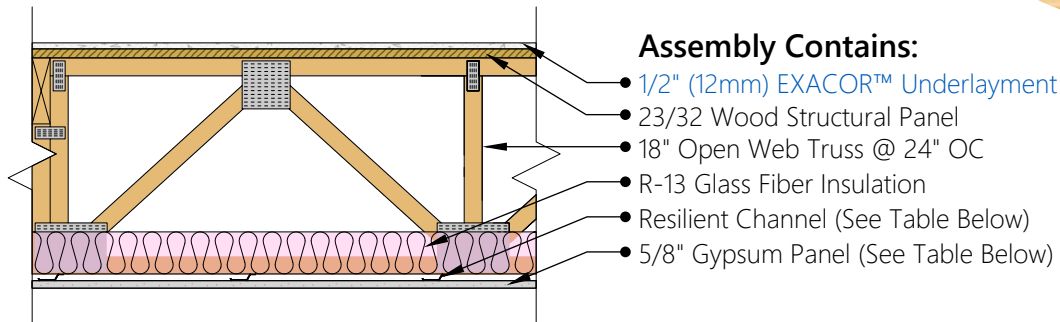
Acoustical Performance - EXACOR™ Underlayment								
	Finished Flooring							
Floor Covering	None*	2mm LVT - Adhered		2mm LVT - Adhered		5.5mm LVT - Floated		
Underlayment		None		1.4mm Acoustical Underlayment		None		
	Ceiling Option 1							
Furring Type	Resilient Channel @ 16" On Center							
Gypsum Panel	5/8" ULIX™ Gypsum							
STC/IIC	STC	IIC	STC	IIC	STC	IIC	STC	IIC
Score	57	50	58	52	58	53	59	54
HIIC	51		54		63		59	
Report No.	L9005.01-113-11-R0		L9005.02-113-11-R0		L9005.03-113-11-R0		L9005.04-113-11-R0	
	Ceiling Option 2							
Furring Type	Resilient Channel @ 12" On Center							
Gypsum Panel	5/8" Type C Gypsum							
STC/IIC	STC	IIC	STC	IIC	STC	IIC	STC	IIC
Score	59	47	59	50	59	51	60	52
HIIC	49		55		64		57	
Report No.	L9602.01-113-11-R0		L9006.02-113-11-R0		L9006.03-113-11-R0		L9006.04-113-11-R0	

*Assembly shown without floor covering for information purposes only. EXACOR™ panels must be covered by a finish flooring material.

EXACOR™ UNDERLAYMENT

Floor/Ceiling Assembly

Rating:	Not Rated for Fire-Resistance
Design No.:	N/A



Acoustical Performance - EXACOR™ Underlayment								
	Finished Flooring							
Floor Covering	None*		2mm LVT - Adhered		2mm LVT - Adhered		5.5mm LVT - Floated	
Underlayment			None		1.4mm Acoustical Underlayment		None	
	Ceiling							
Furring	Resilient Channel @ 16" On Center							
Gypsum Panel	5/8" Type C Gypsum							
STC/IIC	STC	IIC	STC	IIC	STC	IIC	STC	IIC
Score	58	51	59	54	59	55	60	56
HiIC	52		59		68		61	
Report No.	L6141.26-113-11-R0		L6141.27-113-11-R0		L6141.28-113-11-R0		L6141.29-113-11-R0	

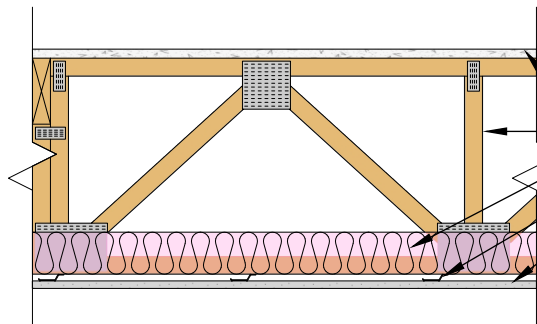
*Assembly shown without floor covering for information purposes only. EXACOR™ panels must be covered by a finish flooring material.

Floor/Ceiling Assembly

Rating: 1hr Fire-Resistance

Design No.: UL L601

See applicable UL Design for full assembly details and requirements.



Assembly Contains:

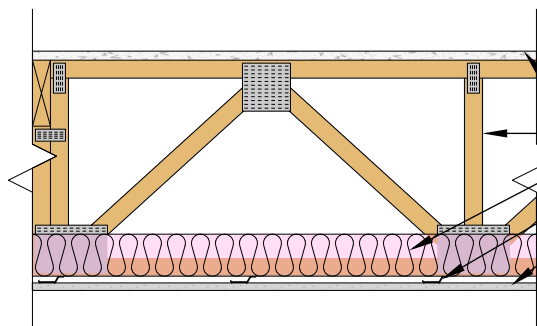
- 3/4" (20mm) EXACOR™ Subfloor
- 18" Open Web Truss @ 24" OC
- R-13 Glass Fiber Insulation
- Resilient Channel @ 12" OC
- 5/8" Type C Gypsum Panel

Acoustical Performance - EXACOR™ Subfloor

	Finished Flooring					
Floor Covering	None*		5.5mm LVP - Floating		2mm LVT - Adhered	
Underlayment			2.1mm Acoustical Underlayment		1.4 mm Acoustical Underlayment	
	Ceiling					
Furring	Resilient Channel @ 12" On Center					
Gypsum Panel	5/8" Type C Gypsum					
STC/IIC	STC	IIC	STC	IIC	STC	IIC
Score	56	41	58	50	58	50
HIIC	40		61		65	
Report No.	K9387.07-113-11-R0		K9387.01-113-11-R0		K9387.04-113-11-R0	

*Assembly shown without floor covering for information purposes only. EXACOR™ panels must be covered by a finish flooring material.

Floor/Ceiling Assembly	
Rating:	Not Rated for Fire-Resistance
Design No.:	N/A



Assembly Contains:

- 3/4" (20mm) EXACOR™ Subfloor
- 18" Open Web Truss @ 24" OC
- R-13 Glass Fiber Insulation
- Resilient Channel @ 16" OC
- 5/8" Type C Gypsum Panel

Acoustical Performance - EXACOR™ Subfloor						
	Finished Flooring					
Finished Floor Covering	None*		5mm LVT - Adhered		2.5mm LVT - Adhered	
Underlayment			1.5mm Acoustical Underlayment		4.3 mm Acoustical Underlayment	
	Ceiling					
Furring	Resilient Channel @ 16" OC					
Gypsum Panel	5/8" Type C Gypsum					
STC/IIC	STC	IIC	STC	IIC	STC	IIC
Score	57	36	60	55	58	51
Report No.	H3258.07-113-11-R0		H3258.08-113-11-R0		J5544.01-113-11-R0	

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