

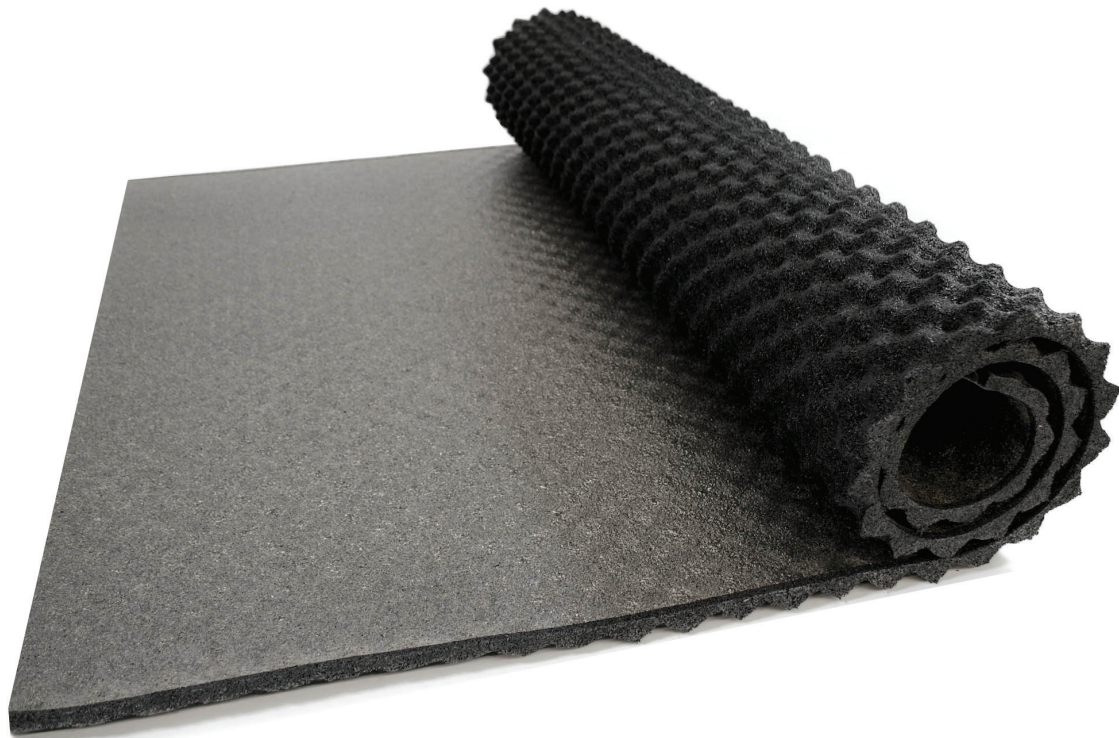


It's not magic, it's engineering.®

Impact Sound Control

GENIEMAT® FF

Floating Floor Systems for Airborne
& Impact Sound and Vibration Isolation



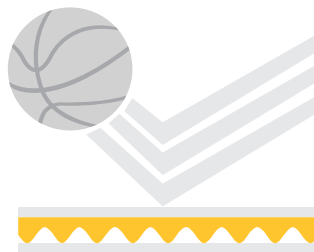
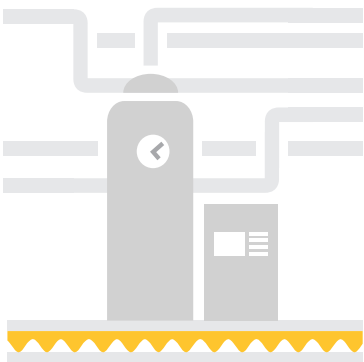
GENIEMAT[®] FF

The next generation of acoustical floating floor

PRODUCT FEATURES

- Continuous underlayment system that limits surface area contact down to 4% at 2 psi
- Achieves low natural frequency with systems available as low as 6 Hz
- Can be safely loaded over a wide range up to 1450 psi
- Composed of 92% recycled rubber content
- Integrated vapor barrier
- Qualifies for LEED[®] points
- Mold, bacteria, fungi, and water resistant
- Penetrations for pipes, ductwork, electrical conduits, and drains are easily accommodated
- Rolls out quickly and is easy to install without the need for adhesive
- Can be used directly under gypsum, lightweight, or normal weight concrete with no plywood formwork required

GenieMat FF is used for multiple applications. Contact our engineers for your project specific questions.



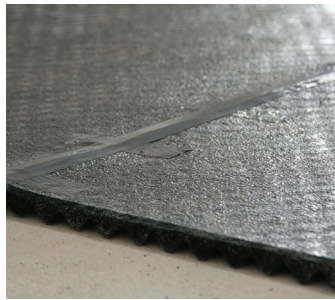
EASY INSTALLATION

ROLL IT OUT - TAPE THE SEAMS - READY TO POUR



Step 1

After installing perimeter isolation strips on the base of the walls, unroll **GenieMat® FF**.



Step 2

Duct tape all joints and seams, including between the perimeter isolation strips and the **GenieMat FF**.



Step 3

Pour gypsum, lightweight or normal weight concrete topping.



Step 4

Prepare concrete surface for floor finish.

SIGNIFICANTLY IMPROVES INSTALLATION EFFICIENCY

STEPS	GENIEMAT® FF ROLL OUT SYSTEM	PLYWOOD FORMWORK ISOLATOR BASED SYSTEMS	SPRING JACK-UP TYPE SYSTEM
1	Install GenieMat PMI	Design isolator layout	Coordinate load requirements with associated trades
2	Roll out GenieMat FF	Install perimeter isolation	Design isolator layout based on equipment placement
3	Tape the seams	Roll out mineral fiber matting with fiberglass isolators	Install perimeter Isolation
4	Layout reinforcement and pour concrete	Install additional isolators based on load design	Verify equipment placement, snap chalk lines and spray paint isolator locations
5		Check isolators orientation and location	Layout clear polyethylene plastic sheathing
6		Cut and install plywood formwork	Layout isolators and place rebar grid
7		Install steel connecting corner plates	Pour concrete and cure to 17.2 MN/m ² minimum
8		Layout reinforcement, waterproof membrane and pour concrete	Remove all isolator cover plates
9			To raise slab 50 mm, complete 2 turns of each isolator 8-10 times
10			Replace cover plates and pour additional floor levelling compound

GENIEMAT[®] FF PHYSICAL PROPERTIES

PLAN VIEW	PRODUCT	THICKNESS	DIMENSION	WEIGHT	AREA
	GenieMat FF06	1/4" (nom. 6 mm)	Rollgood: 4' wide, 30' long (1.2 m wide, 9.1 m long)	80 lb/roll (36 kg/roll)	120 ft ² (11.1 m ²)
	GenieMat FF10	2/5" (nom. 10 mm)	Rollgood: 4' wide, 30' long (1.2 m wide, 9.1 m long)	130 lb/roll (59 kg/roll)	120 ft ² (11.1 m ²)
	GenieMat FF17	2/3" (nom. 17 mm)	Rollgood: 4' wide, 15' long (1.2 m wide, 4.6 m long)	104 lb/roll (47 kg/roll)	60 ft ² (5.6 m ²)
	GenieMat FF25	1" (nom. 25 mm)	Rollgood: 4' wide, 15' long (1.2 m wide, 4.6 m long)	132 lb/roll (60 kg/roll)	60 ft ² (5.6 m ²)
	GenieMat FF50	2" (nom. 51 mm)	Rollgood: 4' wide, 15' long (1.2 m wide, 4.6 m long)	180 lb/roll (82 kg/roll)	30 ft ² (2.8 m ²)
	GenieMat FF75	3" (nom. 75 mm)	Rollgood: 4' wide, 15' long (1.2 m wide, 4.6 m long)	396 lb/roll (180 kg/roll)	20 ft ² (1.9 m ²)
	GenieMat FF70	2 3/4" (nom. 70 mm)	Panel: 23 1/4" wide, 23 1/4" long (nom. 0.6 m wide, 0.6 m long)	12.8 lb (5.8 kg)	3.8 ft ² (0.4 m ²)
	GenieMat FF70LDM	2 3/4" (nom. 70 mm)	Panel: 23 1/4" wide, 23 1/4" long (nom. 0.6 m wide, 0.6 m long)	11.8 lb (5.4 kg)	3.8 ft ² (0.4 m ²)

COMPRESSIBLE ELASTOMER TECHNOLOGY ALLOWS FOR LOW NATURAL FREQUENCY AT LOW LOADS

Typical vulcanized, natural, and neoprene rubber isolators are defined as incompressible. They require heavy mass loading in order to obtain adequate deflection, and consequently, vibration isolation. For applications where minimum loading criteria are not met, data shows the systems do not perform well.

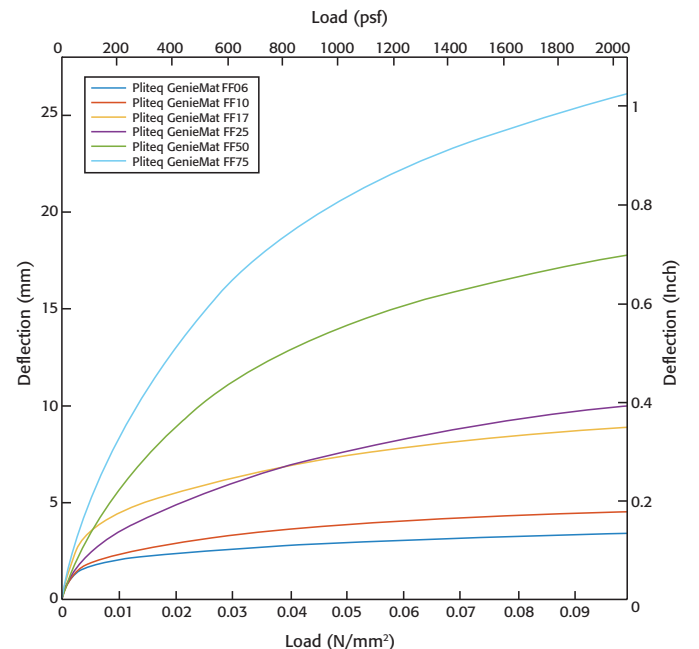
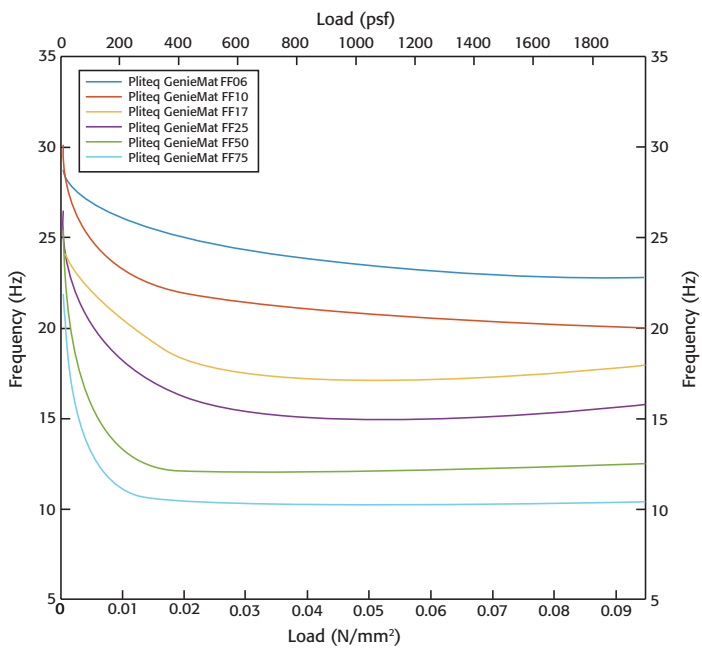
Fiberglass isolators are comprised of rigid particles that lose elasticity when compressed. Data shows a dramatic performance degradation over time.

GENIEMAT[®] FF PROPERTIES

PRODUCT	4" CONCRETE (50 PSF DEAD LOAD)			TYPICAL LOADING (400 PSF DEAD + LIVE LOAD)		
	NATURAL FREQUENCY (HZ)	10 HZ DYNAMIC STIFFNESS (LB/IN/IN ²)	CRITICAL DAMPING RATIO	NATURAL FREQUENCY (HZ)	10 HZ DYNAMIC STIFFNESS (LB/IN/IN ²)	CRITICAL DAMPING RATIO
GenieMat FF06	27	25.0	9.5%	25	173.8	8.4%
GenieMat FF10	25	21.9	9.7%	22	138.0	9.6%
GenieMat FF17	23	19.4	12.5%	18	91.7	11.2%
GenieMat FF25	22	16.5	11.5%	16	72.8	10.8%
GenieMat FF50	18	11.2	10.2%	12	40.2	9.7%
GenieMat FF75	16	8.2	9.6%	10	28.5	9.1%

DESIGN PARAMETERS OF GENIEMAT FF SYSTEMS

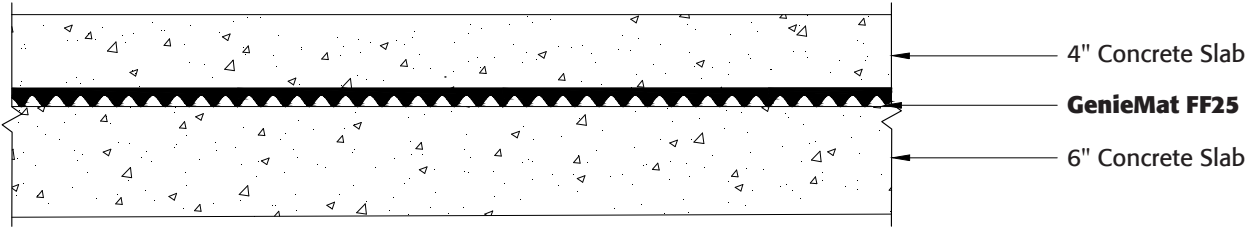
System Natural Frequency vs. Load Deflection vs. Load



GENIEMAT® FF ACOUSTICAL TEST DATA

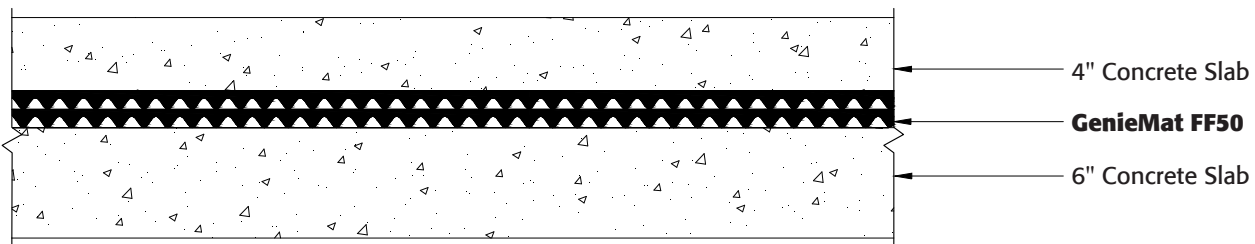
6" STRUCTURAL SLAB WITH FLOATING CONCRETE TOPPING

4" Concrete Topping on GenieMat FF25 on 6" Structural Slab



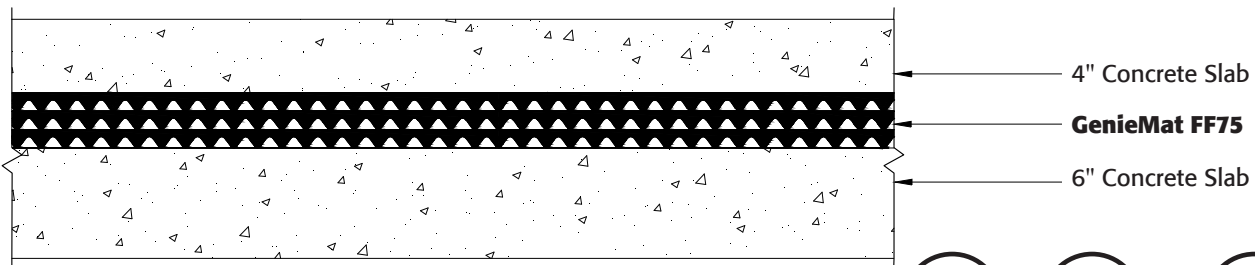
70 STC	65 IIC	16 Hz
F943-41992	F536-41779	F _n

4" Concrete Topping on GenieMat FF50 on 6" Structural Slab



72 STC	67 IIC	12 Hz
F920-41970	F539-41780	F _n

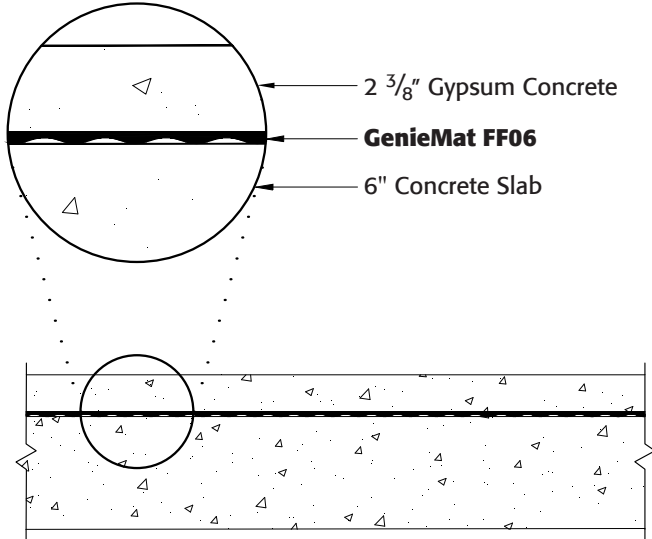
4" Concrete Topping on GenieMat FF75 on 6" Structural Slab



73 STC	69 IIC	10 Hz
F921-41970	F540-41780	F _n

GENIEMAT® FF ACOUSTICAL TEST DATA

2 3/8" Gypsum on GenieMat FF06

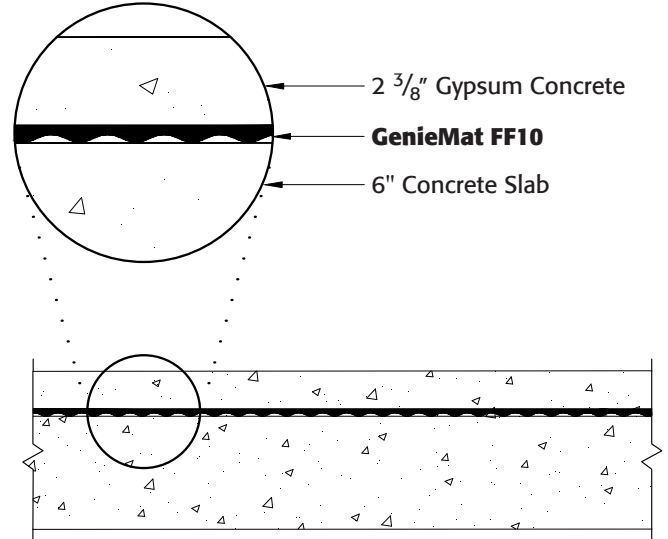


59
STC

58
IIC

F289-41701 F290-41701

2 3/8" Gypsum on GenieMat FF10

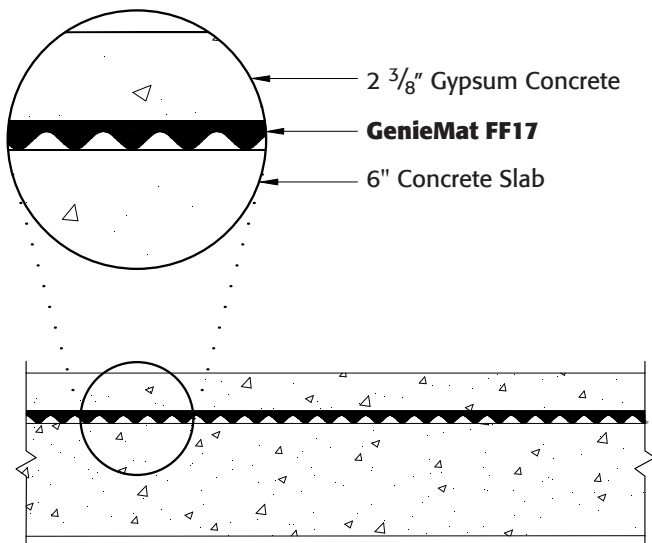


59
STC

59
IIC

F292-41702 F291-41702

2 3/8" Gypsum on GenieMat FF17

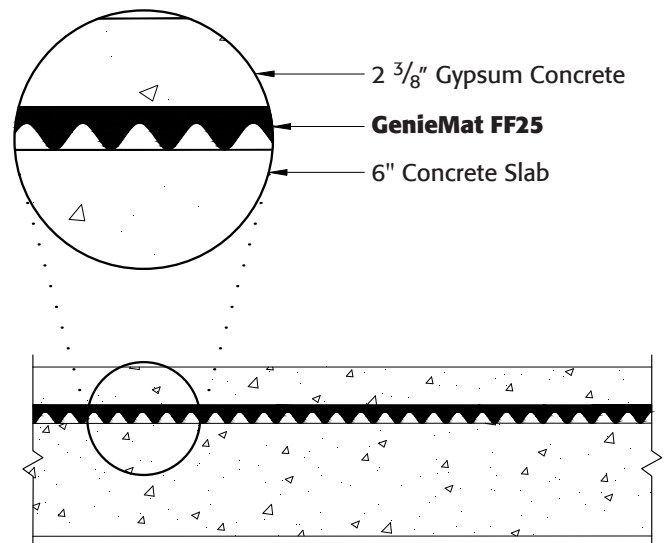


60
STC

61
IIC

F293-41702 F294-41702

2 3/8" Gypsum on GenieMat FF25



61
STC

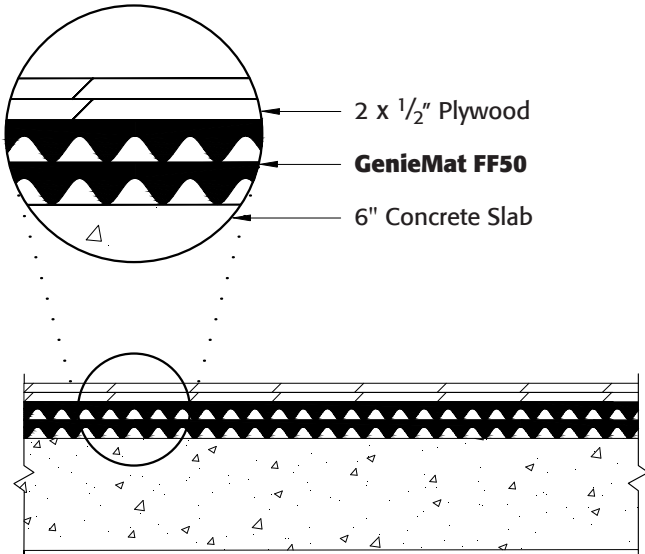
63
IIC

F296-41702 F295-41702

GENIEMAT® FF ACOUSTICAL TEST DATA

6" CONCRETE SLAB WITH PLYWOOD TOPPING

2 Layers of Plywood on GenieMat FF50

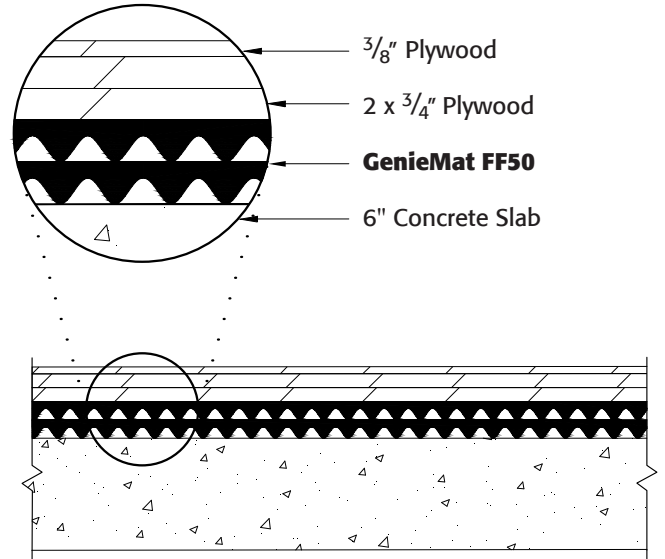


59
STC

56
IIC

B3498.13

3 Layers of Plywood on GenieMat FF50

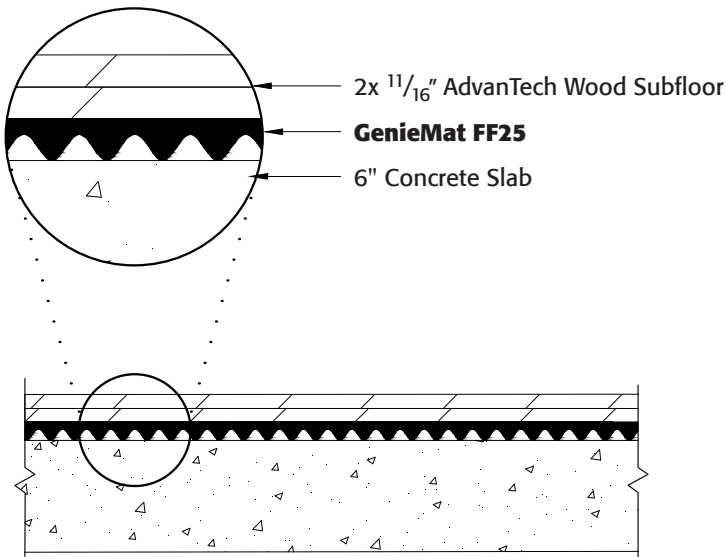


59
STC

58
IIC

5014148 7014204

2 Layers of AdvanTech® on GenieMat FF25

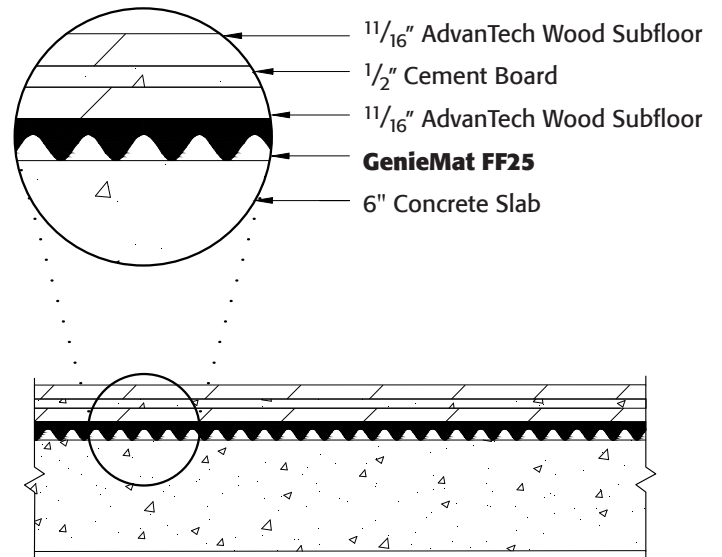


56
STC

56
IIC

G2953.04

2" AdvanTech Cement Board Raft on GenieMat FF25



58
STC

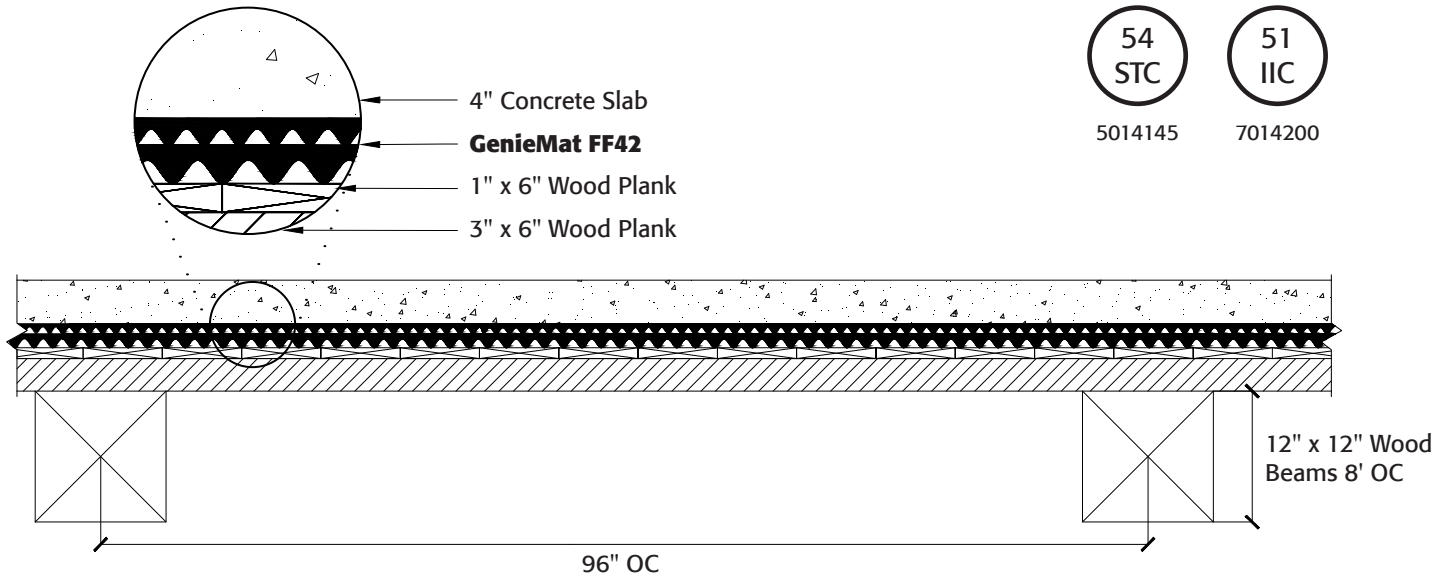
59
IIC

G2953.05

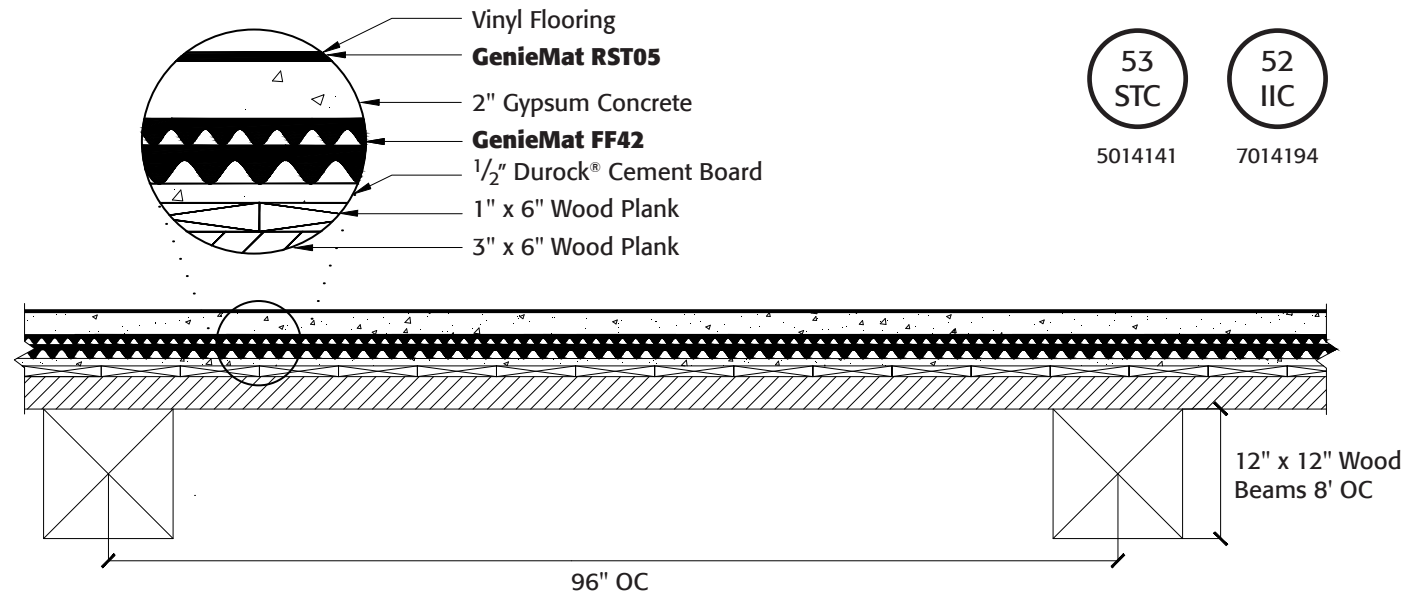
GENIEMAT® FF ACOUSTICAL TEST DATA

HEAVY TIMBER ASSEMBLIES

4" Concrete Over GenieMat FF42



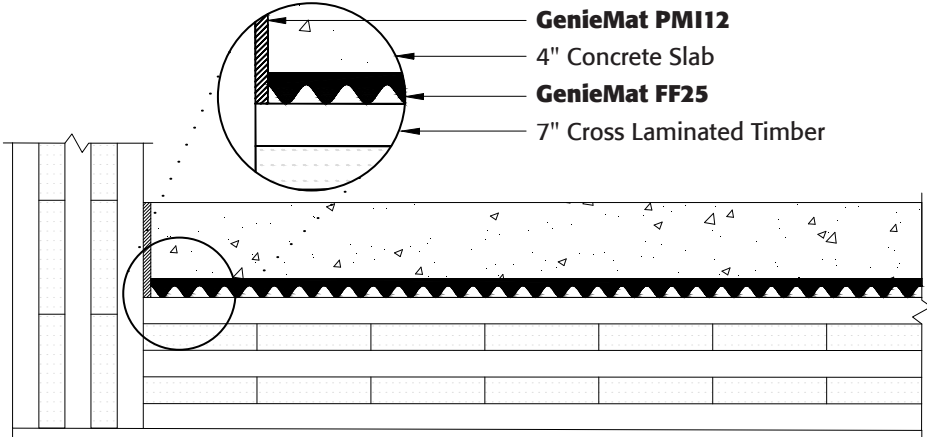
2" Gypsum Concrete Over GenieMat FF42 Over 1/2" Cement Board



GENIEMAT® FF ACOUSTICAL TEST DATA

CROSS LAMINATED TIMBER ASSEMBLIES

7" Cross Laminated Timber with 4" Concrete Topping on GenieMat FF25

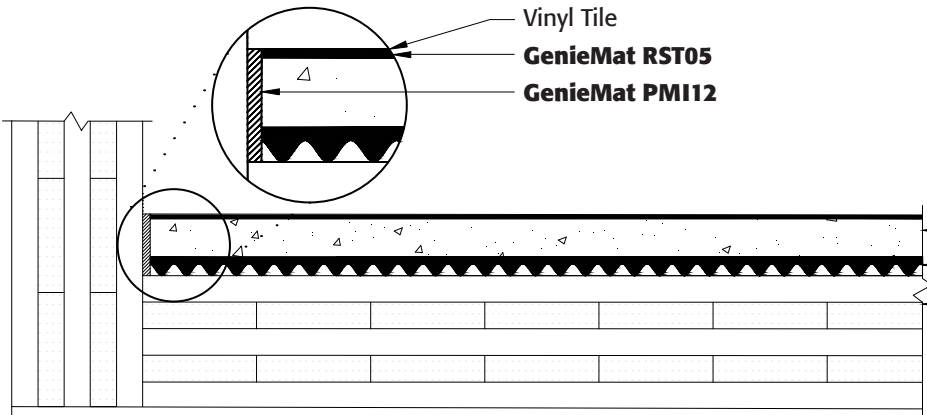


57
STC

50
IIC

F5500.08

7" Cross Laminated Timber with 2" Gypsum Concrete Topping on GenieMat FF25

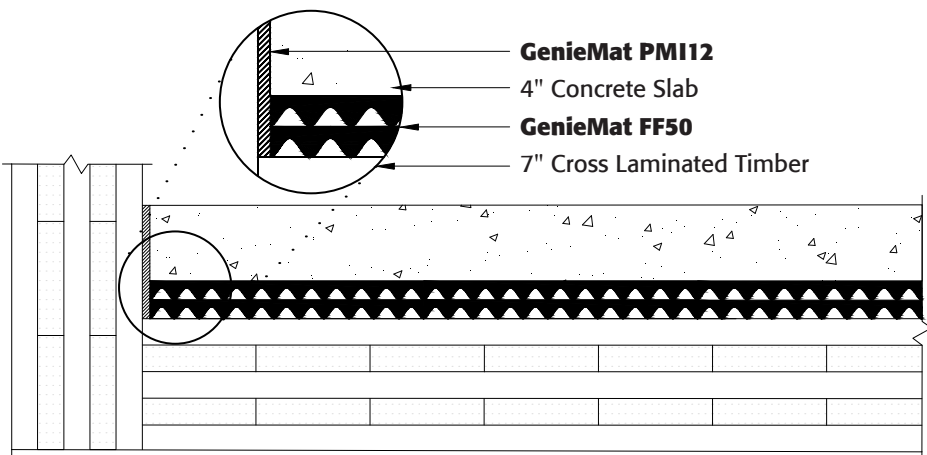


53
STC

51
IIC

F6279.14

7" Cross Laminated Timber with 4" Concrete Topping on GenieMat FF50



59
STC

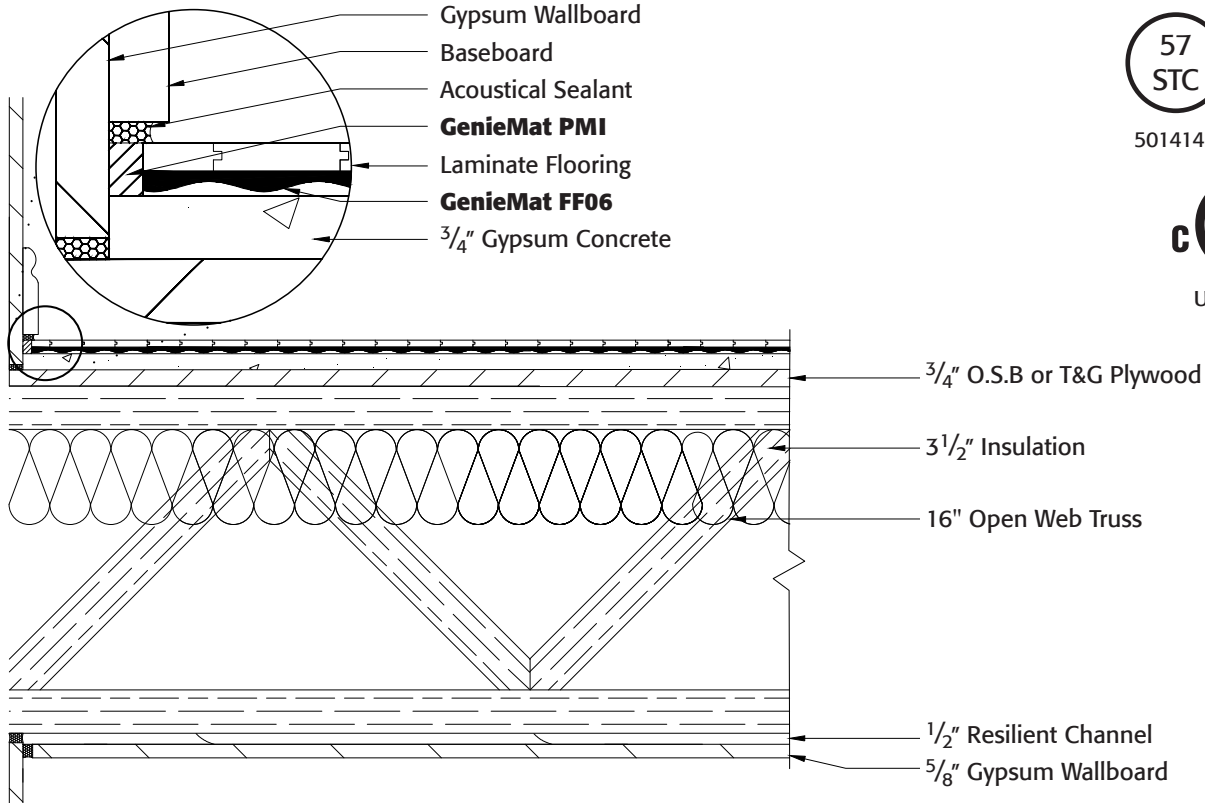
54
IIC

F5500.10

GENIEMAT® FF ACOUSTICAL TEST DATA

LIGHTWEIGHT WOOD FRAME ASSEMBLIES

16" Open Web Truss with Floating Wood Floor on GenieMat FF06



57
STC

5014142

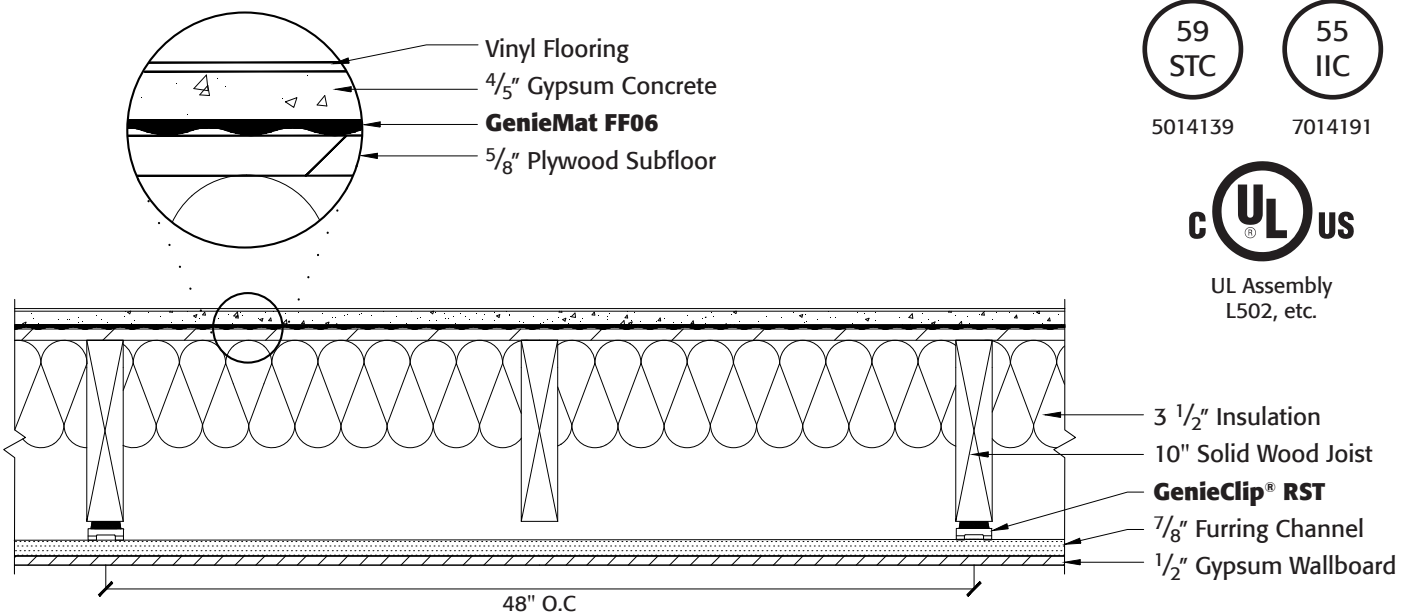
53
IIC

7014195



UL Assembly
L546, etc.

2 x 10 Wood Joist with 4/5" Gypsum Concrete Topping on GenieMat FF06



59
STC

5014139

55
IIC

7014191

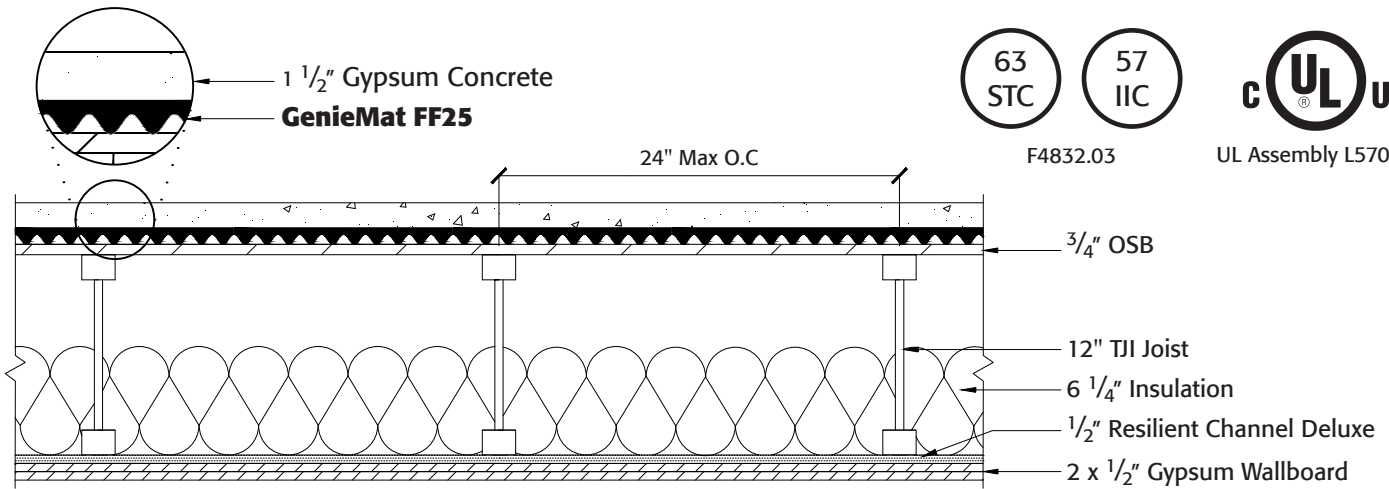


UL Assembly
L502, etc.

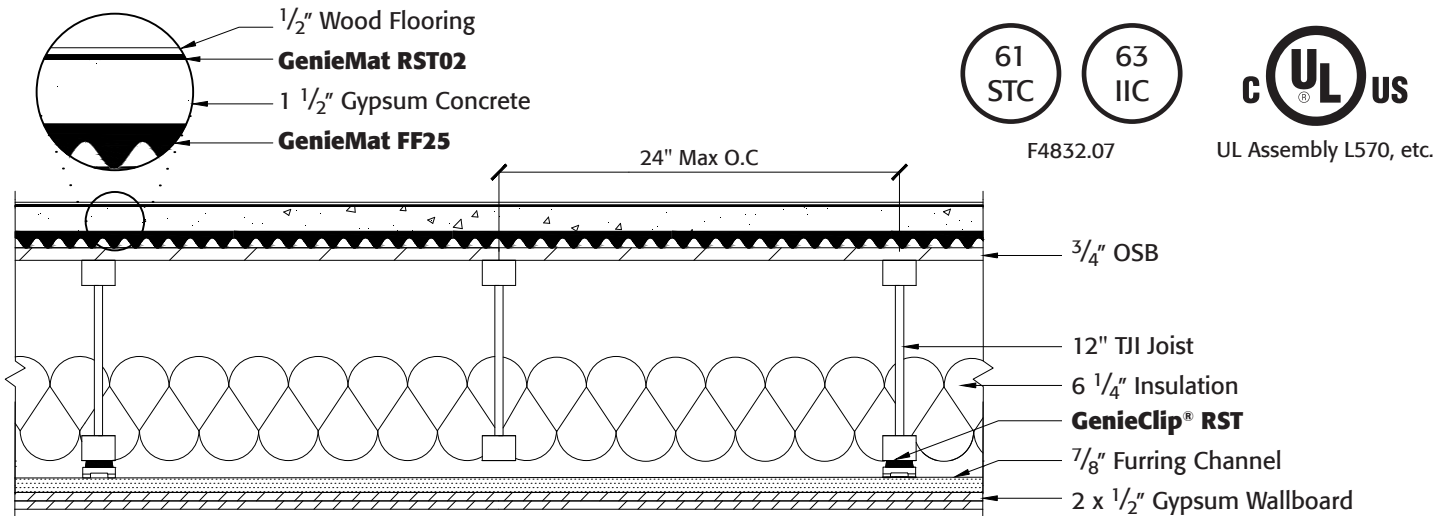
GENIEMAT® FF ACOUSTICAL TEST DATA

12" ENGINEERED JOIST WOOD FRAME ASSEMBLIES

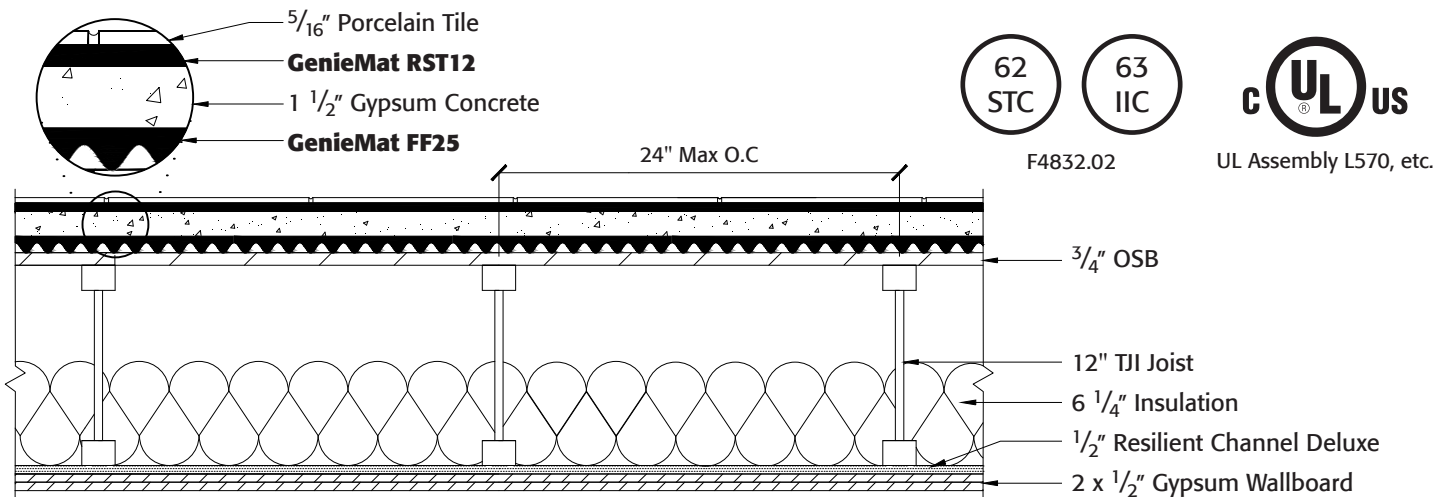
1 1/2" Gypsum Concrete Topping on GenieMat FF25



Wood Flooring on GenieMat RST02 on 1 1/2" Gypsum Concrete Topping on GenieMat FF25



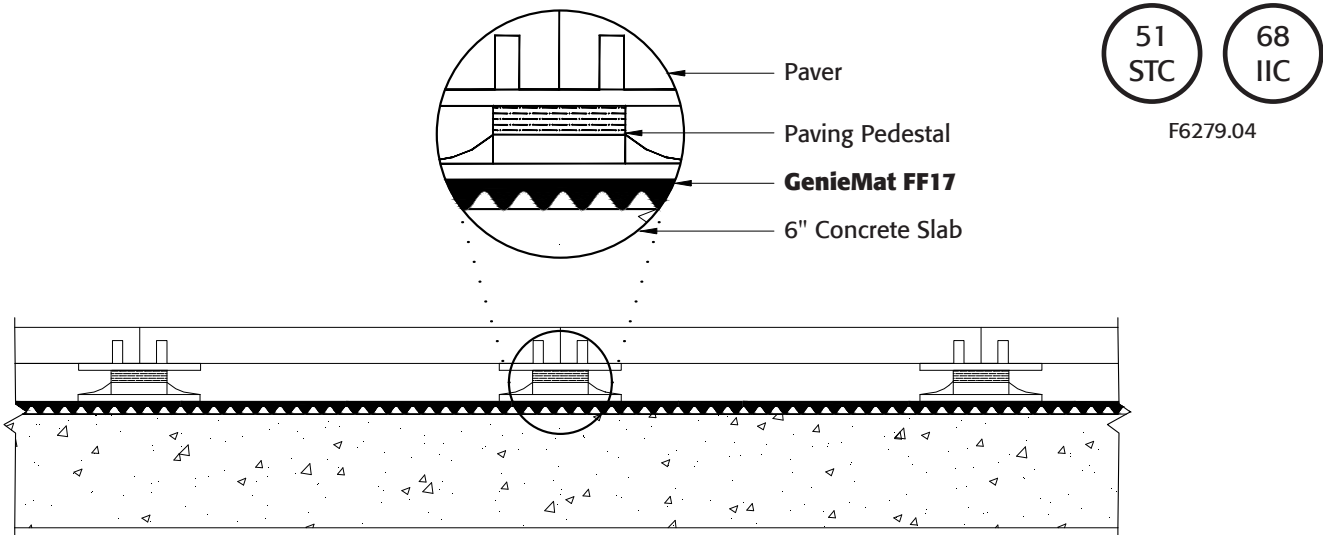
Tile Floor on GenieMat RST12 with 1 1/2" Gypsum Concrete Topping on GenieMat FF25



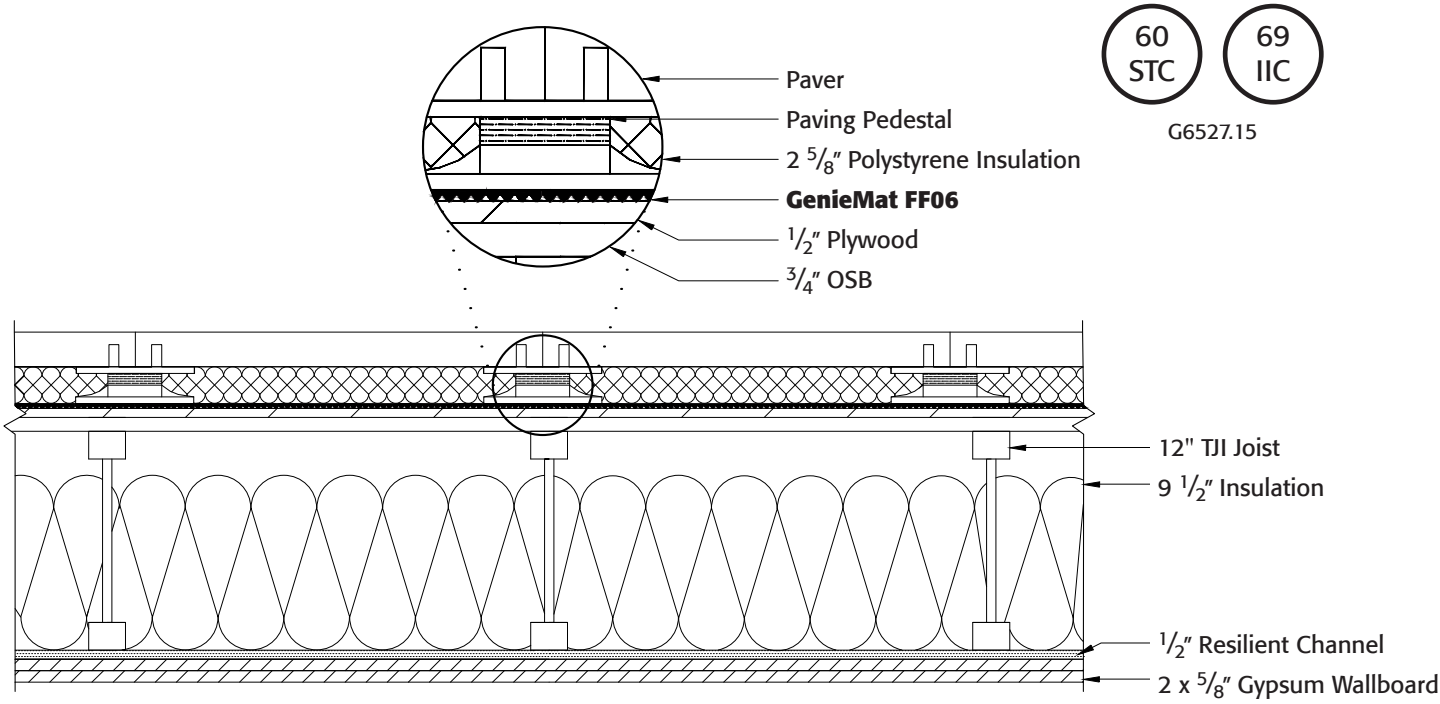
GENIEMAT® FF ACOUSTICAL TEST DATA

ROOFTOP AND DECK ASSEMBLIES

Stone Pavers and Adjustable Pedestals on GenieMat FF17



Stone Pavers and Adjustable Pedestals on GenieMat FF06



GENIEMAT® FF PANELIZED SYSTEMS

PRODUCT FEATURES

- Comes in easy to handle panels - nominal 2' x 2' (23 1/4" x 23 1/4")
- Tongue and groove edge design lets you quickly and easily fit panels into place
- Sturdy 5/8" engineered wood core
- Installed over wood or concrete subfloors

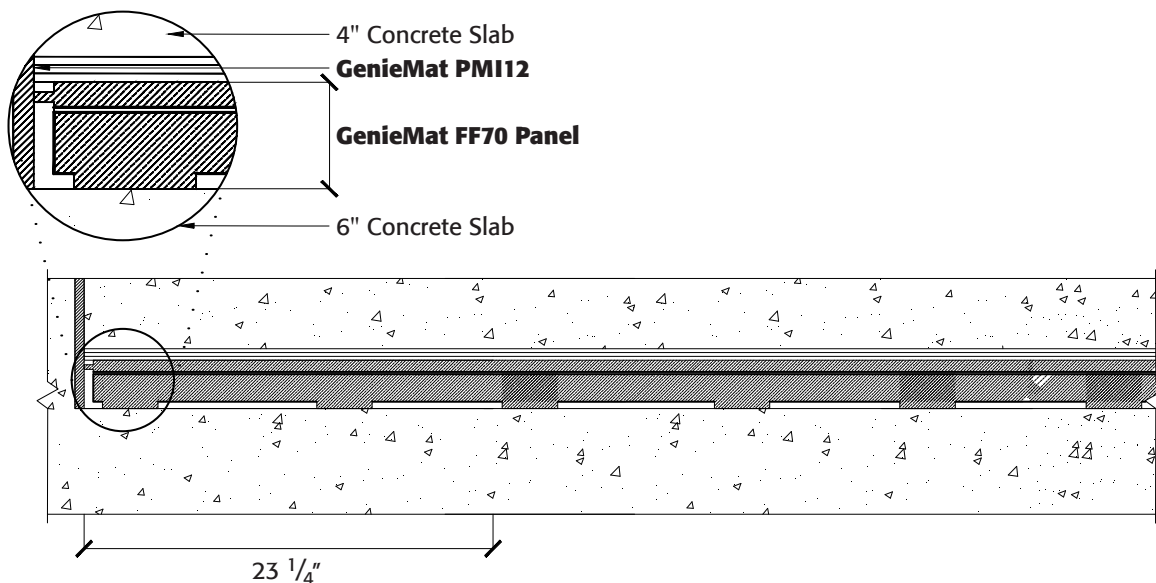


GENIEMAT FF70

- Panels are made with 2" thick pyramid-profiled isolation pads embedded in a layer of acoustical insulation
- Natural frequency down to 10 Hz
- Contact area with subfloor is reduced by 99%
- ΔIIC 35 (ASTM E2179)

GENIEMAT FF70LDM

- Panels are made with 2" thick Low Dynamic Stiffness proprietary Pliteq elastomer embedded in a layer of acoustical insulation
- Natural frequency down to 6 Hz
- Minimum load 3" concrete (37 psf)
- Contact area with floor is reduced by 96%
- ΔIIC 44 (ASTM E2179)



AI-008867.4

GENIEMAT® FF PANELIZED SYSTEMS FOR BASKETBALL COURT ISOLATION

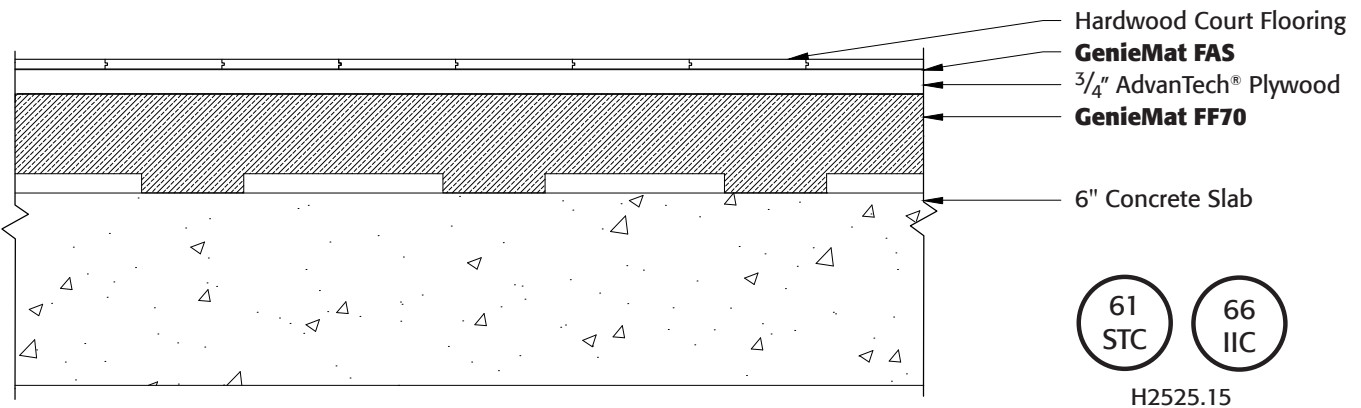


NOISE AND VIBRATION CONTROL

Impact noise generated from basketball court applications requires specific noise and vibration attenuation measures.

Using a heavy/soft impact ball for laboratory testing, **GenieMat FF70** and **GenieMat FF70LDM** have been proven to effectively mitigate noise and vibration in numerous college, university and professional sports applications.

Hardwood Court Flooring with 3/4" Advantech Plywood on GenieMat FF70



TEST RESULTS

TEST RESULTS					
TEST REPORT	PRODUCT	FLOOR TOPPING	STRUCTURE	STC RATING (ASTM E90)	IIC RATING (ASTM E492)
B3498.1	None	None	6" Concrete Slab	53	29
F935-41976, F541-41780	GenieMat® FF17	4" Concrete Slab	6" Concrete Slab	70	61
F943-41992, F536-41779	GenieMat FF25	4" Concrete Slab	6" Concrete Slab	70	65
F920-41970, F539-41780	GenieMat FF50	4" Concrete Slab	6" Concrete Slab	72	67
F921-41970, F540-41780	GenieMat FF75	4" Concrete Slab	6" Concrete Slab	73	69
e8117.02	GenieMat FF70	4" Concrete Slab	6" Concrete Slab	64	64
F289-41701, F290-41701	GenieMat FF06	2 3/8" Lightweight Concrete	5 1/2" Concrete Slab	59	58
F292-41702, F291-41702	GenieMat FF10	2 3/8" Lightweight Concrete	5 1/2" Concrete Slab	59	59
F293-41702, F294-41702	GenieMat FF17	2 3/8" Lightweight Concrete	5 1/2" Concrete Slab	60	61
F296-41702, F295-41702	GenieMat FF25	2 3/8" Lightweight Concrete	5 1/2" Concrete Slab	61	63
F297-41702, F298-41702	GenieMat FF50	2 3/8" Lightweight Concrete	5 1/2" Concrete Slab	63	66
F6279.04	GenieMat FF17	1 3/4" Stone Pavers + 2" Adjustable Deck Supports	6" Concrete Slab	51	68
g2953.02	GenieMat FF25	(2) 1/2" Cement Board	6" Concrete Slab	55	58
g2953.04	GenieMat FF25	(2) 3/4" AdvanTech® Wood Subfloor	6" Concrete Slab	56	56
5014139, 7014190	GenieMat FF06	3/4" Gypsum Concrete	2x10 Wood Joist + GenieClip RST + 1/2" GWB	59	52
5014142, 7014195	GenieMat FF06	Engineered Wood + 3/4" Gypsum Concrete + 3/4" Plywood	16" Open Web Truss + 1/2" Resilient Channel + 5/8" GWB	57	53
g1707.11	GenieMat FF06	Vinyl + (2) 1/4" Cement Board + 3/4" OSB	18" Open Web Truss + 1/2" Resilient Channel + 5/8" GWB	61	65
5014049, 7014060	None	None	Heavy Timber Floor	29	24
5014082, 7014109	None	4" Concrete Slab	Heavy Timber Floor	40	34
5014145, 7014200	GenieMat FF42	4" Concrete Slab	Heavy Timber Floor	54	51
7014194	GenieMat FF42	Vinyl + GenieMat RST05 + 2" Gypsum Concrete + 1/2" Cement Board	Heavy Timber Floor	53	52
F5500.08	GenieMat FF25	4" Concrete Slab	7" CLT	57	50
F6279.14	GenieMat FF25	Vinyl + GenieMat RST05 + 2" Gypsum Concrete	7" CLT	53	51
g1707.05	GenieMat FF23	4" Concrete Slab	7" CLT	56	52
F5500.10	GenieMat FF50	4" Concrete Slab	7" CLT	59	54

CONTACT US

For Your Project Specific Questions
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