

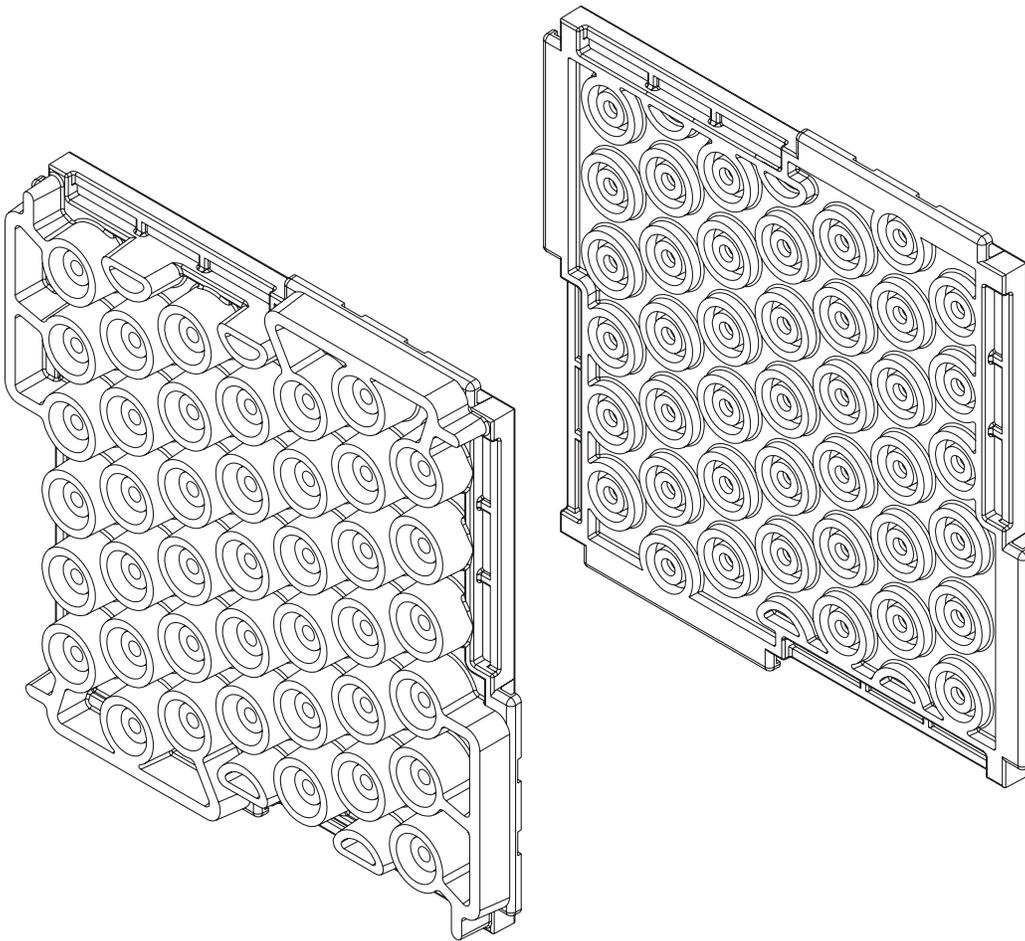


**It's not magic, it's engineering.®**

Impact Sound Control

# GENIEMAT<sup>®</sup> FIT

For Weight Drop Impact Insulation



# GENIEMAT<sup>®</sup> FIT

## All-in-one fitness flooring

### PRODUCT FEATURES

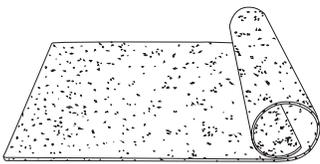
**GenieMat FIT** is an all-in-one fitness floor made from recycled rubber, engineered to reduce structure-borne sound and vibration transmission in concrete, wood frame and metal deck construction.

**GenieMat FIT** floors dramatically reduce low frequency impact noise in free weight areas, under cardio equipment and in fitness studios.

	<b>GenieMat FIT08</b>	<b>GenieMat FIT30</b>	<b>GenieMat FIT70</b>
Weight/sf	1.7 - 2.2 lb (0.8 - 1.0 kg)	5.2 lb (2.3 kg)	9.2 lb (4.2 kg)
Thickness	5/16" (8 mm)	1 1/4" (30 mm)	2 3/4" (70 mm)
Installed Dimension	48" x 25' (1220mm x 7620mm)	23 7/8" x 23 7/8" (607 mm x 607 mm)	23 7/8" x 23 7/8" (607 mm x 607 mm)
Product Type	Roll	Interlocking Tile	Interlocking Tile

All listed dimensions are nominal.

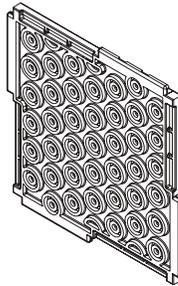
**GenieMat FIT30** and **GenieMat FIT70** have a product and installed dimension tolerance of +/- 1/8".



## GenieMat® FIT08

### APPLICATIONS

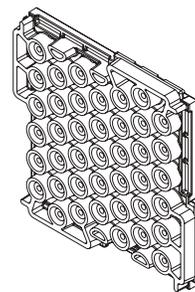
- Entryways/corridors
- Group fitness areas
- Locker rooms
- Spinning studios



## GenieMat FIT30

### APPLICATIONS

- Cardio studios
- Personal training areas
- Machine areas



## GenieMat FIT70

### APPLICATIONS

- High impact studios
- Free weight/dumbbell areas

# ENGINEERED FOR PERFORMANCE

## GenieMat® FIT DESIGN CRITERIA

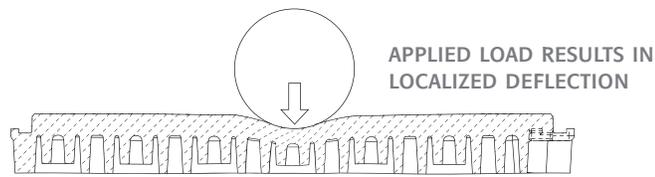
### SIGNIFICANTLY REDUCES STRUCTURE-BORNE VIBRATION

- Low dynamic stiffness for improved low frequency response
- Engineered dual cylinder pedestals reduce vibration transmission
- Decreased impact force exposure level as measured using heavy/hard impact sources

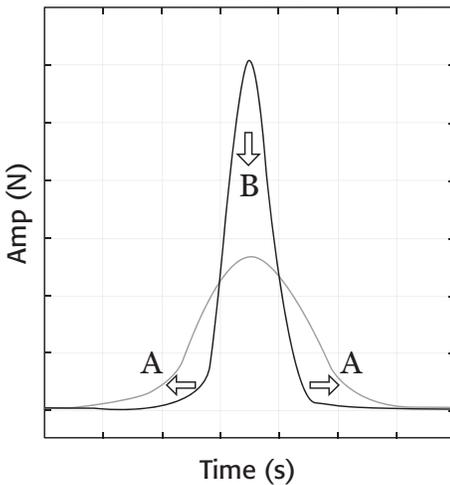
### SEAMLESS, INTERLOCKING FIT

- Tiles are installed in compression to have a seamless aesthetic and eliminate seam separation over time
- Seam compression of 59 lbf/in (10.3 N/mm)

### DESIGN OBJECTIVES OF A LOCALLY REACTIVE TILE

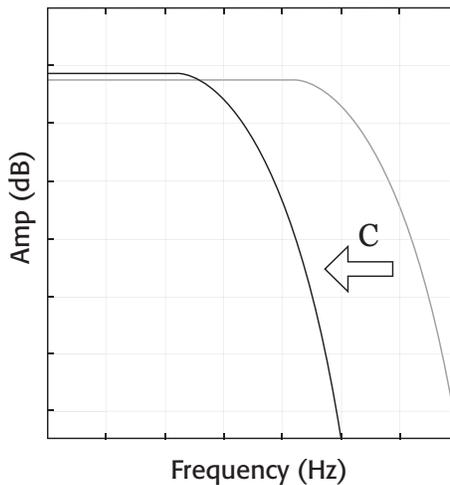


TIME DOMAIN FORCE PULSE



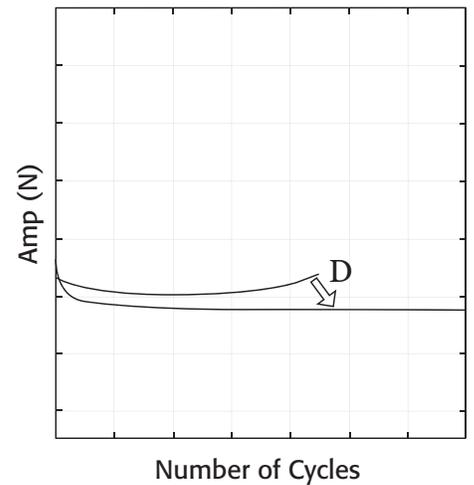
- A. Extending contact time improves lower frequency attenuation
- B. Reducing peak force value reduces overall sound pressure level

FREQUENCY DOMAIN FORCE PULSE



- C. Reducing 3 dB down point frequency improves lower frequency attenuation

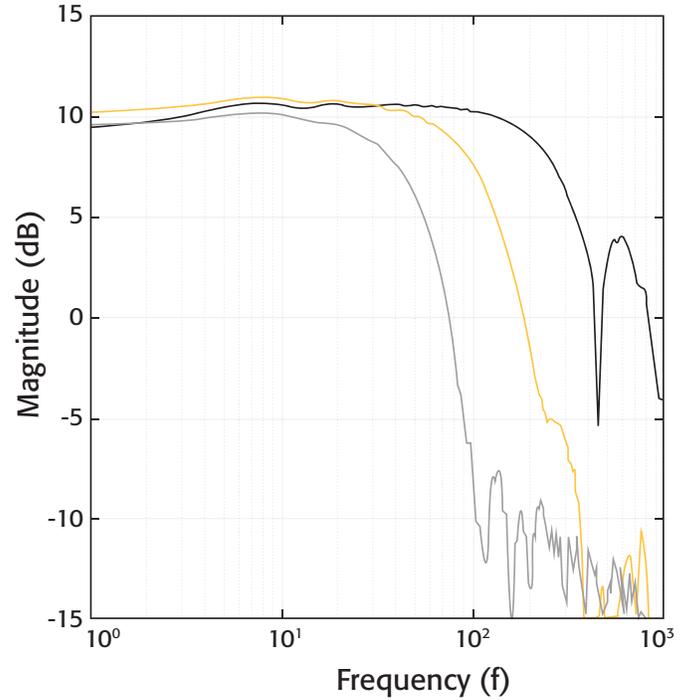
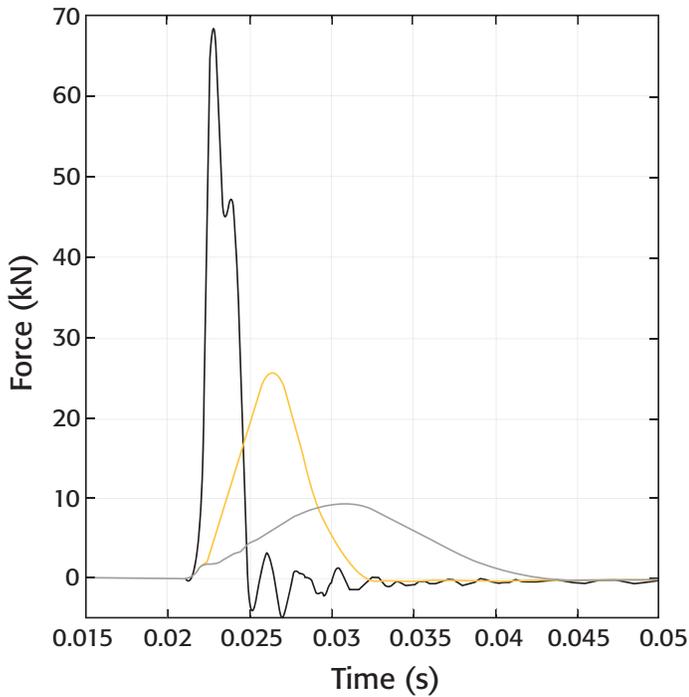
DURABILITY



- D. Flattening out durability curve equates to improved product lifetime
- Plot of peak force values taken from repeated force pulse measurements

## FORCE PULSE MEASUREMENTS OF GENIEMAT® FIT SYSTEMS

- Can be used to predict in-situ performance. Contact **Pliteq** for *Internoise 2018* paper and methodology



**GenieMat FIT08**  
 **GenieMat FIT30**  
 **GenieMat FIT70**

**GenieMat FIT08**  
 **GenieMat FIT30**  
 **GenieMat FIT70**

## ENGINEERING DESIGN CHARACTERISTICS

TEST RESULTS				
TEST DESCRIPTION	STANDARD REFERENCE	GenieMat FIT08	GenieMat FIT30	GenieMat FIT70
Slip Resistance	ASTM D2047	0.90	0.81	0.81
Tensile Strength	ASTM D412	>300 psi	107 psi	92 psi
CHPS Section 01350	ASTM D5116	Pass	Pass	Pass
Chemical Resistance	ASTM F925	No Change	No Change	No Change
Impact Force Exposure Level	ISO 10140 - Part 5	43 dB	41 dB	39 dB
Critical Radiant Flux	ASTM E648	Class I /Class II*	Class I /Class II*	Class I /Class II*

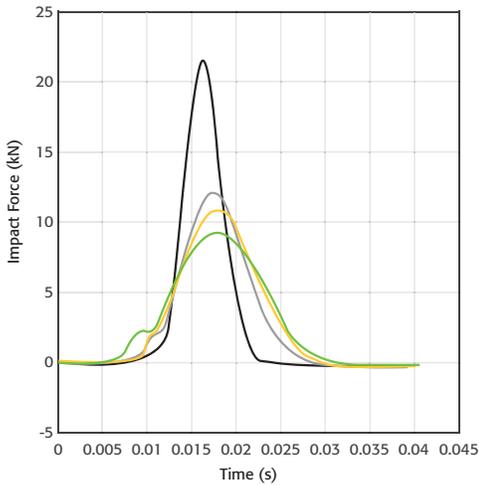
\*Class I available upon request.

# GENIEMAT® xFIT

## GenieMat xFIT TESTING

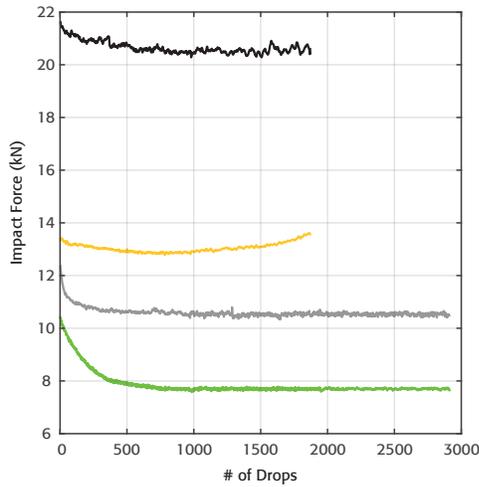
US Patent: US 10,676,920 B2

### FORCE PULSE



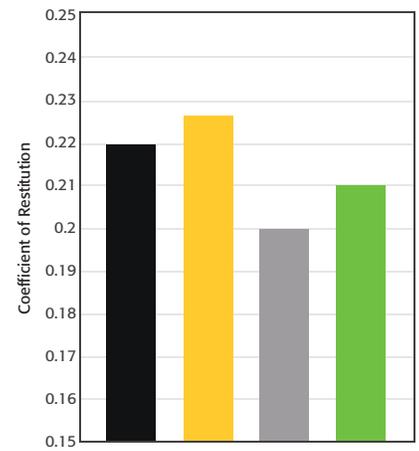
- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

### FATIGUE TESTING



- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

### REBOUND PLOTS

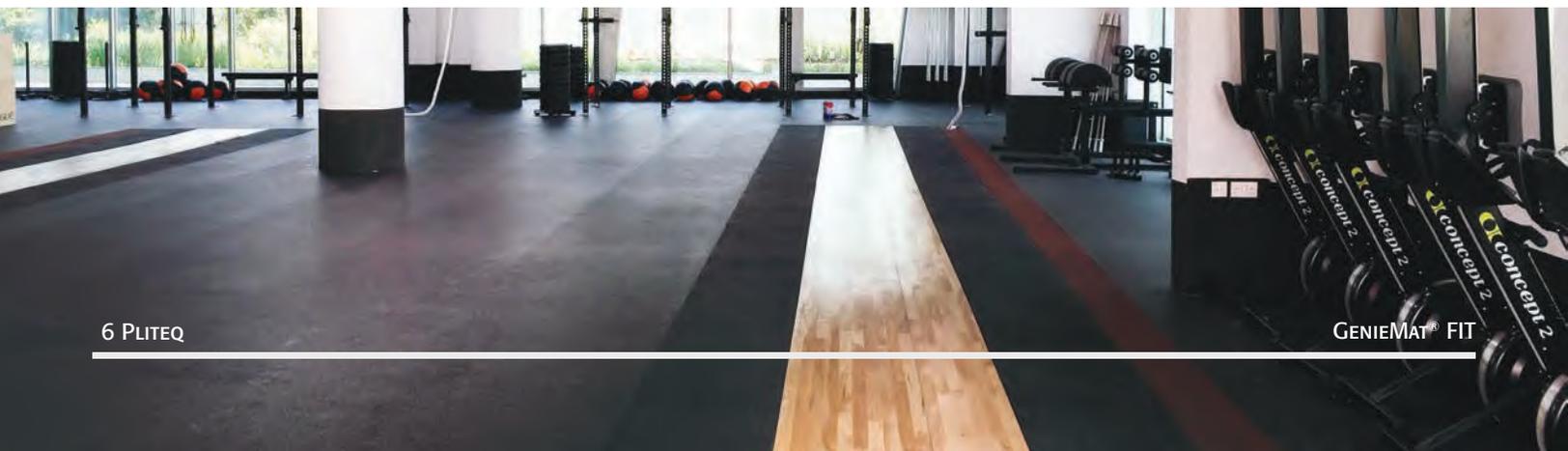


- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

## ENGINEERING DESIGN CHARACTERISTICS

	GenieMat xFIT70	GenieMat xFIT100
Weight/sf	9.3 lb/sf (4.2 kg/sf)	11.6 lb/sf (5.3 kg/sf)
Thickness	2 3/4" (70 mm)	4" (100 mm)
Product Finish	Interlocking Tile	Interlocking Tile

## PLATFORMS

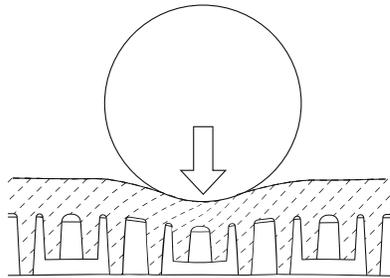


# HYBRID SYSTEM

WITH **GenieMat® FIT** AND **GenieMat FF**

## LOCALLY REACTIVE

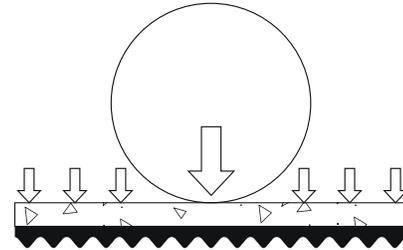
APPLIED LOAD RESULTS IN LOCALIZED DEFLECTION



RESILIENT TILE

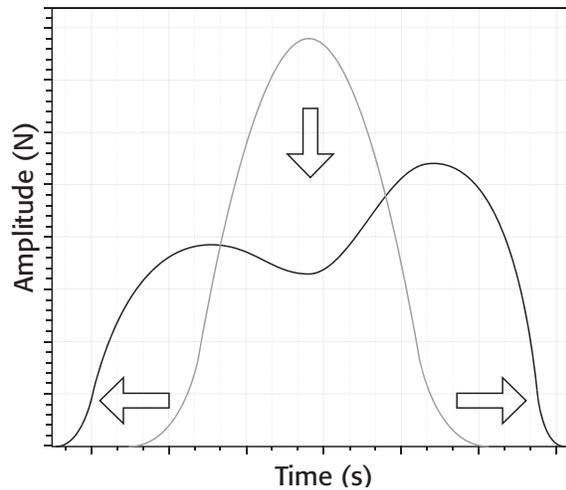
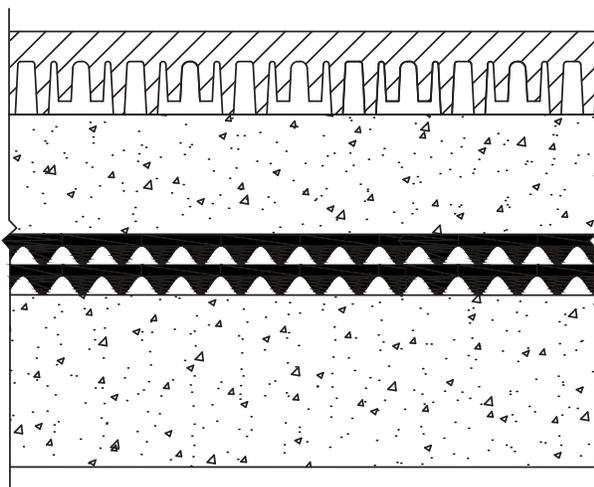
## RESONANTLY REACTIVE

APPLIED LOAD RESULTS IN DISTRIBUTED DEFLECTION



RIGID LAYER & RESILIENT UNDERLAYMENT

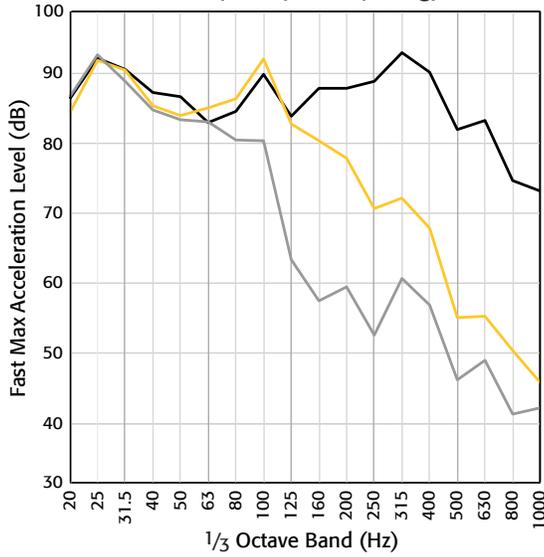
LOCALLY REACTIVE ABOVE RESONANTLY REACTIVE CREATES A HYBRID SYSTEM



- Helps reduce impact force amplitude and increase force impulse duration
- Ideal for rhythmic excitation such as dance studios and treadmill bays

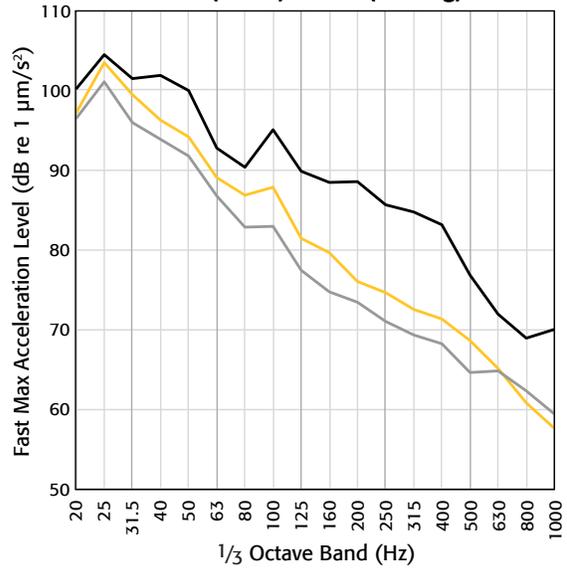
# TILE DATA

**Heavy Weight Drop - Acceleration**  
39" (1.0 m) 15 lb (6.8 kg)



- E5600.12 **GenieMat FIT08**
- E5600.14 **GenieMat FIT30**
- E5600.15 **GenieMat FIT70**

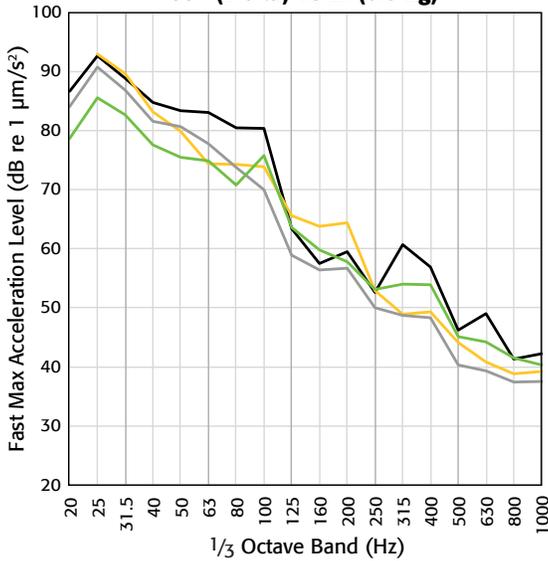
**Heavy Weight Drop - Acceleration**  
39" (1.0 m) 100 lb (45.4 kg)



- E5600.15 **GenieMat FIT70**
- E5600.16 **GenieMat xFIT70**
- E5600.17 **GenieMat xFIT100**

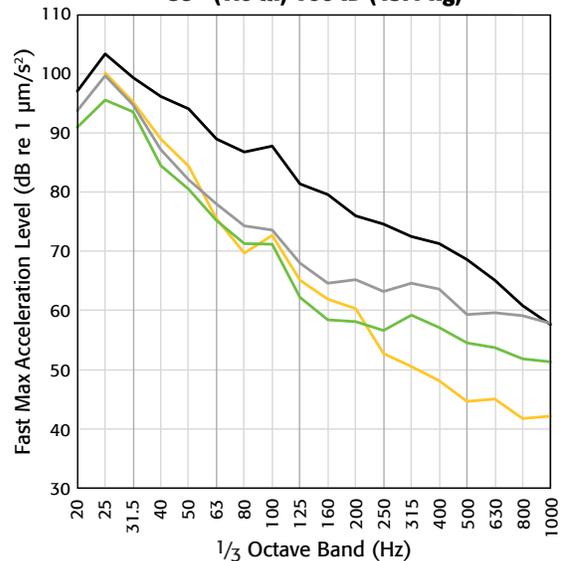
# PLYWOOD HYBRID

**Heavy Weight Drop - Acceleration**  
39" (1.0 m) 15 lb (6.8 kg)



- E5600.15 **GenieMat FIT70**
- E5600.26 **GenieMat FIT70, 1/2" Cement Board, GenieMat FF25**
- E5600.29 **GenieMat FIT70, 3/4" Plywood, GenieMat FF70**
- E5600.31 **GenieMat FIT70, 3/4" Plywood, GenieMat FF70LDM**

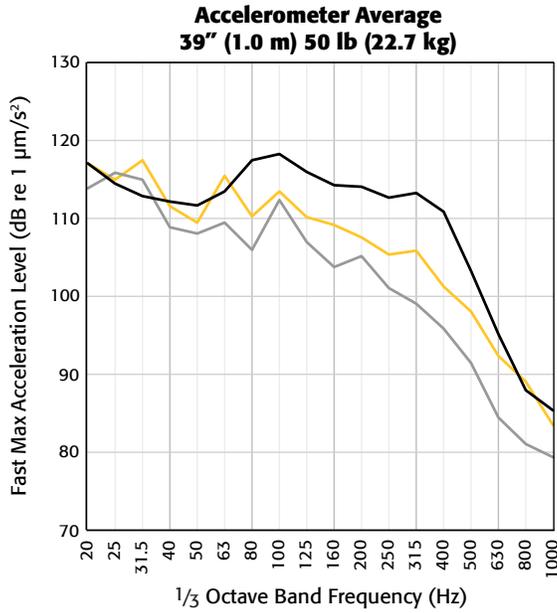
**Heavy Weight Drop - Acceleration**  
39" (1.0 m) 100 lb (45.4 kg)



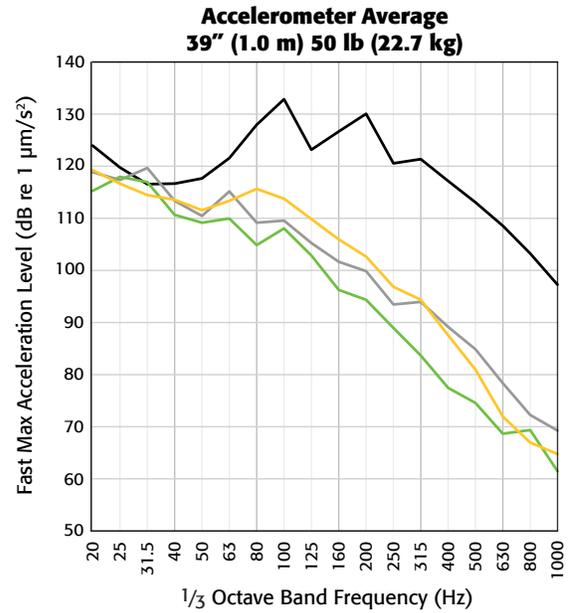
- E5600.16 **GenieMat xFIT70**
- E5600.27 **GenieMat xFIT70, 1/2" Cement Board, GenieMat FF25**
- E5600.30 **GenieMat xFIT70, 3/4" Plywood, GenieMat FF70**
- E5600.32 **GenieMat xFIT70, 3/4" Plywood, GenieMat FF70LDM**

# CONCRETE HYBRID

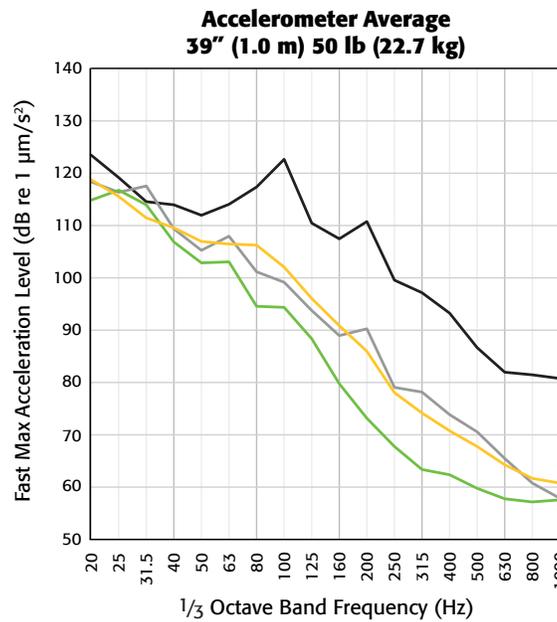
NOTE: FCS - Floating Concrete Slab



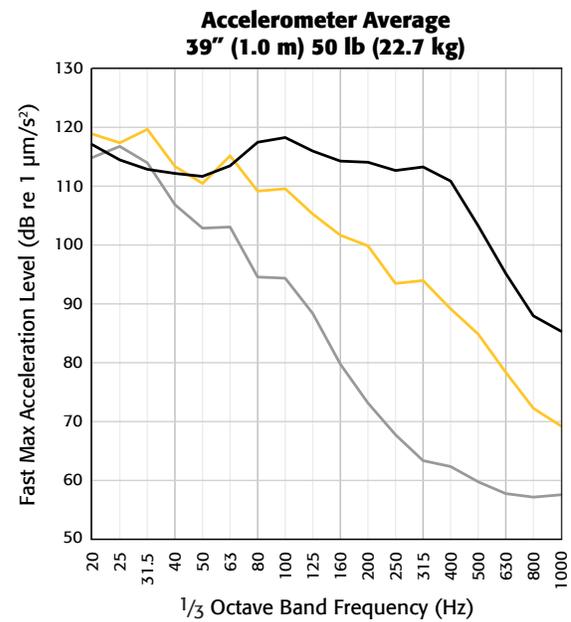
- A1-008867-01F **GenieMat FIT08, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT08, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT08, 4" FCS, GenieMat FF70LDM**



- A1-008867-00F **GenieMat FIT30**
- A1-008867-01F **GenieMat FIT30, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT30, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT30, 4" FCS, GenieMat FF70LDM**



- A1-008867-00F **GenieMat FIT70**
- A1-008867-01F **GenieMat FIT70, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT70, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT70, 4" FCS, GenieMat FF70LDM**



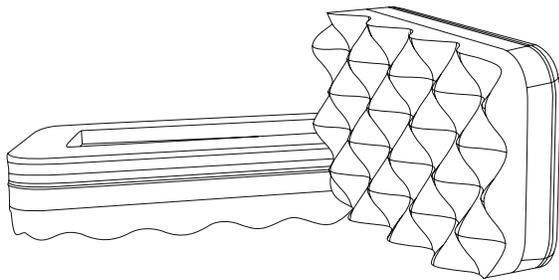
- A1-008867-01F **GenieMat FIT08, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT30, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT70, 4" FCS, GenieMat FF70LDM**

# GENIEMAT® TMIP

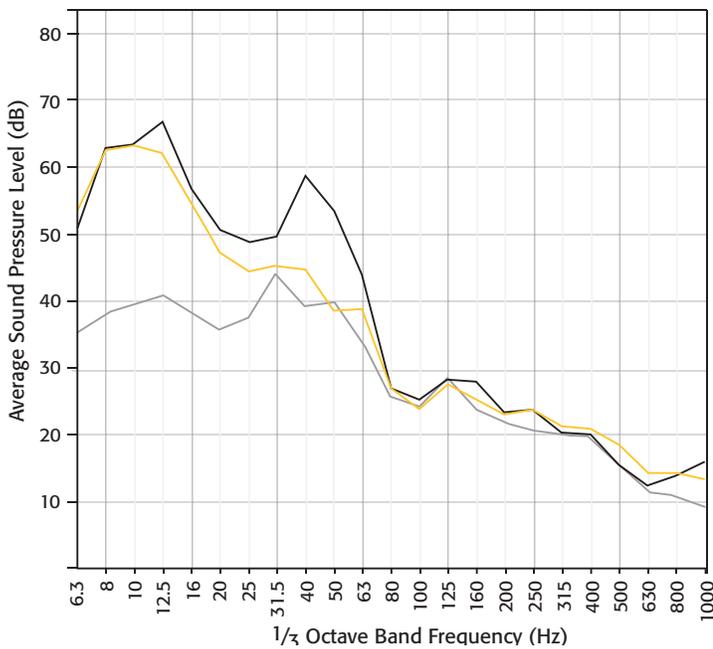
## TREADMILL ISOLATION PADS

U.S Patent No.: 8,113,495  
 Canadian Patent No.: 2,505,938

**GenieMat TMIP** are inherently non-slip.



STANDARD THICKNESS	2"
STANDARD SIZES	5" x 18" – Front Mounts 5" x 7" – Rear Mounts
STATIC DEFLECTION	Lightweight case: 100 lb user 1.46 psi deflection 1 to 2 cm Heavyweight case: 300 lb user 2.76 psi deflection 2 to 3 cm



### ENGINEERED TO REDUCE LOW FREQUENCY IMPACT

Field Measured Average Sound Pressure Levels

- Running with 1 layer of 3/4" rubber
- Running with **GenieMat® TMIP** on 1 layer of 3/4" rubber
- Ambient sound level, no running

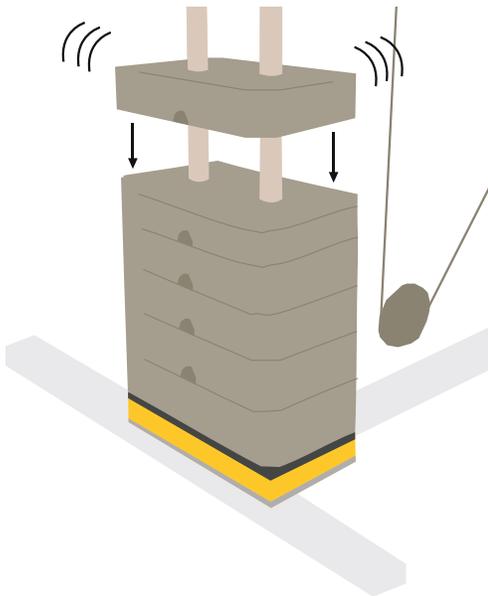
# GENIEMAT® WSI

## WEIGHT STACK ISOLATORS

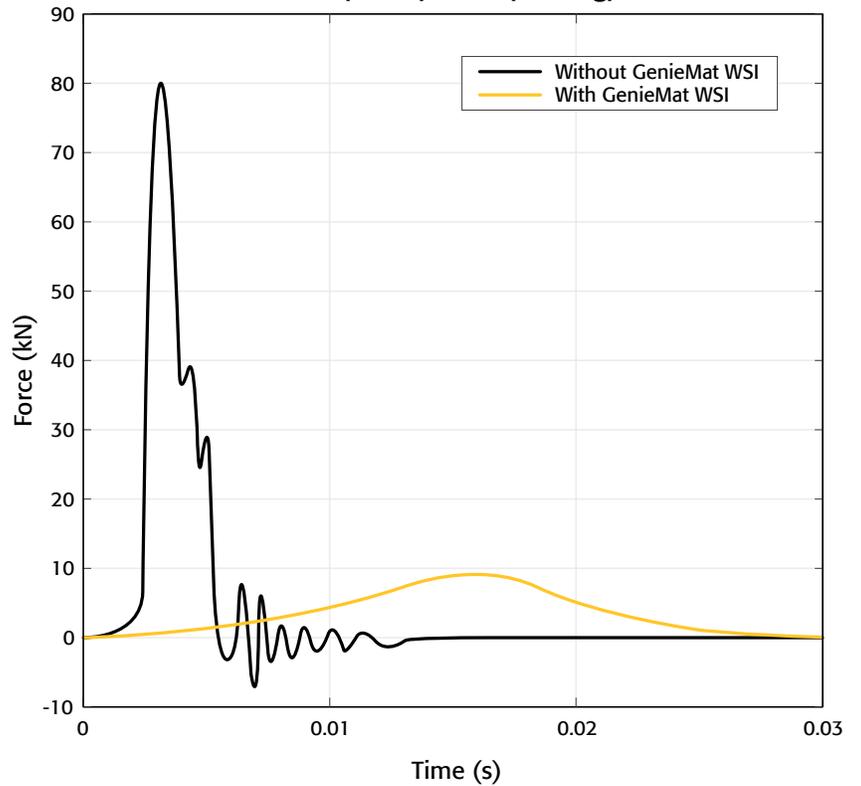
Patent pending

GenieMat WSI isolates impact noise from selectorized machines.

- Reduce impact noise at the source
- Customized size to fit every weight stack
- Installation does not require machine disassembly

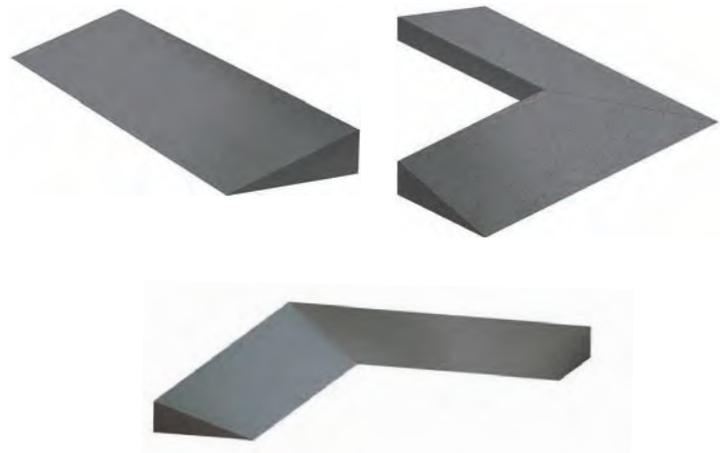


**Force Pulse Comparison**  
20" (0.5 m) 50 lb (22.7 kg)



## GENIEMAT® FIT ACCESSORIES

- Customized on site to accommodate any threshold
- Accessories for all installation types
- Corner transitions created in the field
- **GenieMat FASHM adhesive**
- ADA compliant ramps available
- Load plates available to accommodate high point loads

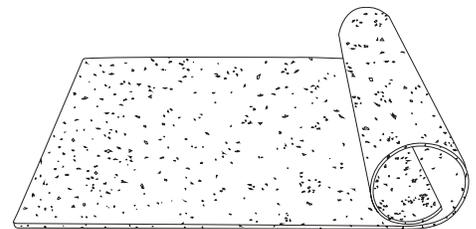




# GENIEMAT<sup>®</sup> FIT08

## Fitness Flooring Rolls

A protective, wear-resistant finished floor used in entryways, corridors, group fitness areas, locker rooms and spinning studios.





## GenieMat® FIT08 PHYSICAL PROPERTIES

TEST TYPE	ASTM	TEST RESULT
Shore hardness	D2240	>70 +/- 5
Density	D729	>65 lb/ft <sup>3</sup>
Elongation (at break)	D412	>90%
Tensile strength	D412	>300 psi
Taber abrasion	C501	0.45
Critical radiant flux	D395	Class I/II*
Flame spread	E84	135**
Smoke density	E84	<450**
Compression set	ISO 815	5% @ 72 Hrs
Coefficient of friction	D1894-95	Wet 1.20 / Dry 1.20
Tear	D624	5.71 lbf/in
Chemical resistance	F925-02	No Change

\* Class I available upon request.

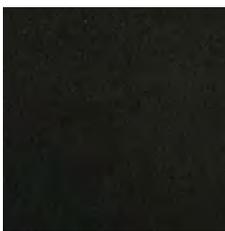
\*\* Same as carpet and wood.

# COLOR SELECTION

## GenieMat® FIT

### STANDARD COLORS

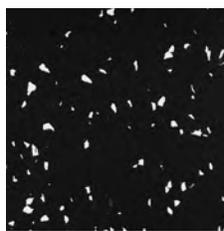
GenieMat FIT tiles are manufactured by fusing a durable wear layer to a recycled rubber crumb base. This provides superior acoustic performance in combination with excellent wear and grip. **GenieMat FIT30** tiles, **GenieMat FIT70** tiles and **GenieMat FITo8** rolls are available in 8 standard color options, see below.



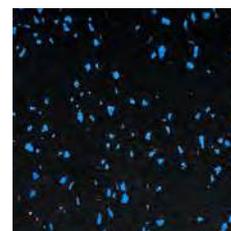
BLACK



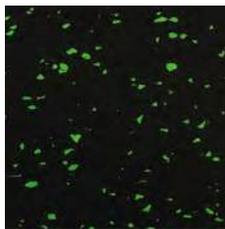
SILVER



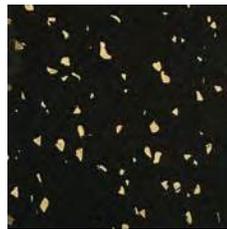
WHITE



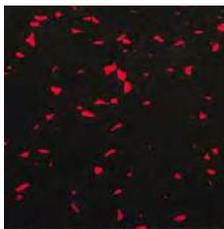
BLUE



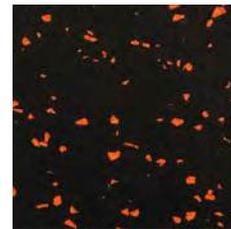
GREEN



CORK



RED



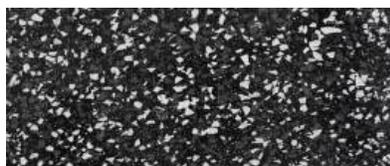
ORANGE

### PREMIUM COLORS

**GenieMat FIT70** tiles and **GenieMat FIT30** tiles are also available in 5 premium color options. For additional custom color formulations please contact your local Pliteq representative (minimum order quantities may apply).



MULCH



OBSIDIAN



GRANITE



SANDSTONE



MARBLE

\*Product colors may vary. Images are for representation purpose only.

# TEST RESULTS

TEST RESULTS				
TEST REPORT NUMBER	FINISH FLOOR	SUBFLOOR SYSTEM*	15 lb HARD IMPACT SOURCE (SPL OF COMBINED 63 Hz OCTAVE BAND IN dB)	100 lb HARD IMPACT SOURCE (SPL OF COMBINED 63 Hz OCTAVE BAND IN dB)
E5600.11	Bare	None		
E5600.12	<b>GenieMat® FIT08</b>	None		
E5600.14	<b>GenieMat FIT30</b>	None	84	95
E5600.15	<b>GenieMat FIT70</b>	None	81	84
E5600.16	<b>GenieMat xFIT70</b>	None	81	88
E5600.17	<b>GenieMat xFIT100</b>	None	80	80
E5600.26	<b>GenieMat FIT70</b>	1/2" Cement Board, <b>GenieMat FF25</b>	80	76
E5600.27	<b>GenieMat xFIT70</b>	1/2" Cement Board, <b>GenieMat FF25</b>	79	82
E5600.28	<b>GenieMat FIT30</b>	3/4" Plywood, <b>GenieMat FF70</b>	82	86
E5600.29	<b>GenieMat FIT70</b>	3/4" Plywood, <b>GenieMat FF70</b>	80	76
E5600.30	<b>GenieMat xFIT70</b>	3/4" Plywood, <b>GenieMat FF70</b>	78	81
E5600.31	<b>GenieMat FIT70</b>	3/4" Plywood, <b>GenieMat FF70LDM</b>	74	72
E5600.32	<b>GenieMat xFIT70</b>	3/4" Plywood, <b>GenieMat FF70LDM</b>	72	75
E5600.33	Bare	3/4" Plywood on 2" x 4" Sleepers, Mason MFS Springs	74	89
E5600.34	<b>GenieMat FIT70</b>	3/4" Plywood on 2" x 4" Sleepers, Mason MFS Springs	72	80
E5600.35	<b>GenieMat xFIT70</b>	3/4" Plywood on 2" x 4" Sleepers, Mason MFS Springs	69	82

\* All assemblies on 6" concrete slab with no ceiling.

## CONTACT US

For Your Project Specific Questions  
 T. 416.449.0049 | E. info@pliteq.com

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[www.pliteq.com](http://www.pliteq.com)