

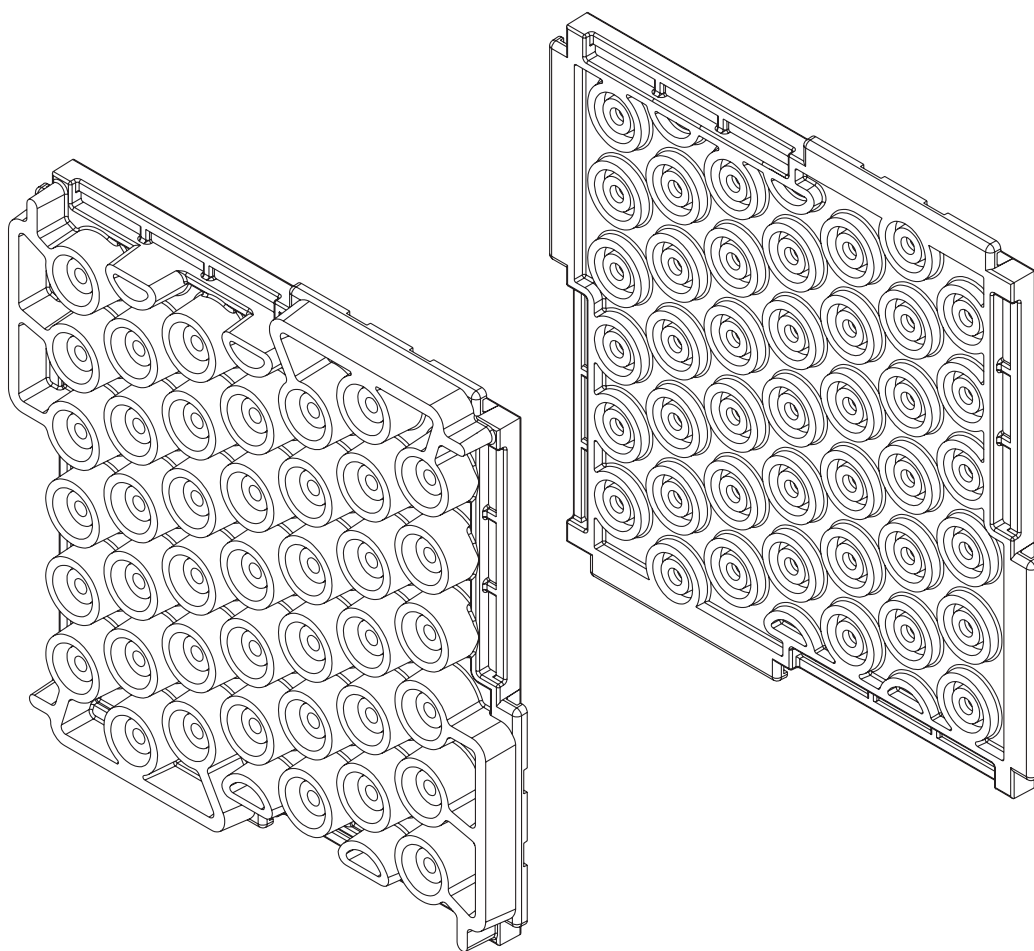


**It's not magic, it's engineering.®**

Impact Sound Control

# GENIEMAT<sup>®</sup> FIT

For Weight Drop Impact Insulation



Patent Pending



# GENIEMAT<sup>®</sup> FIT

## All-in-one fitness flooring

### PRODUCT FEATURES

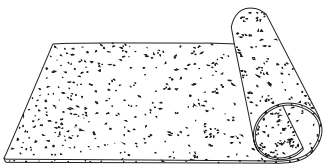
**GenieMat FIT** is an all-in-one fitness floor made from recycled rubber, engineered to reduce structure-borne sound and vibration transmission in concrete, wood frame and metal deck construction.

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

|  | GenieMat FIT08                 | GenieMat FIT30                         | GenieMat FIT70                         |
|-------------------------------------------------------------------------------------|--------------------------------|----------------------------------------|----------------------------------------|
| 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'<br>(1220mm x 7620mm) | 23 7/8" x 23 7/8"<br>(607 mm x 607 mm) | 23 7/8" x 23 7/8"<br>(607 mm x 607 mm) |
| Product Type                                                                        | Roll                           | Interlocking Tile                      | Interlocking Tile                      |

All listed dimensions are nominal.

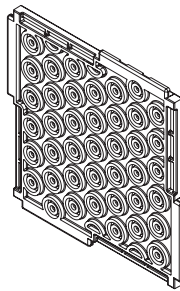
**GenieMat FIT30** and **GenieMat FIT70** have a product and installed dimension tolerance of +/- 1/8".



## GenieMat® FIT08

### APPLICATIONS

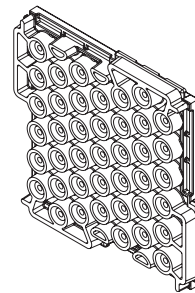
- Entryways/corridors
- Group fitness areas
- Locker rooms
- Spinning studios



## 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

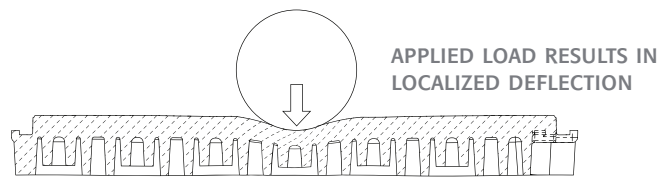
### SIGNIFICANTLY REDUCES STRUCTURE-BORNE VIBRATION

- 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

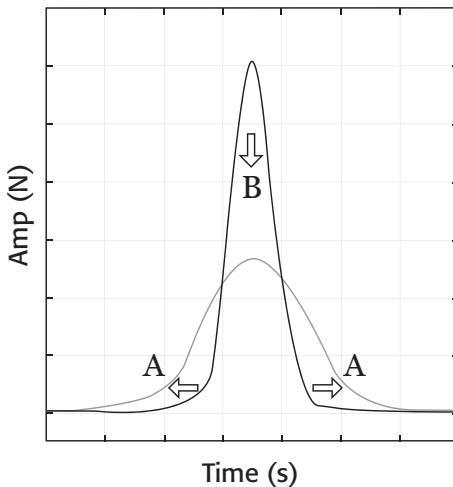
### SEAMLESS, INTERLOCKING FIT

- 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

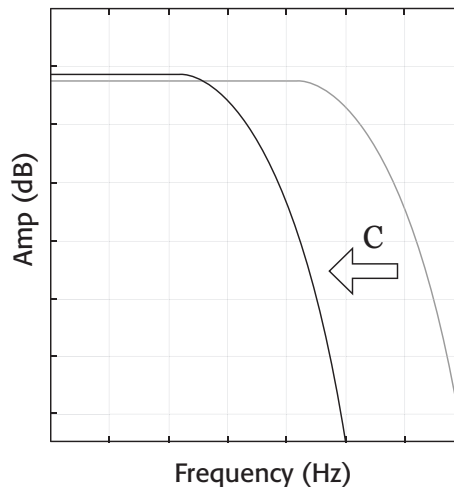


#### TIME DOMAIN FORCE PULSE



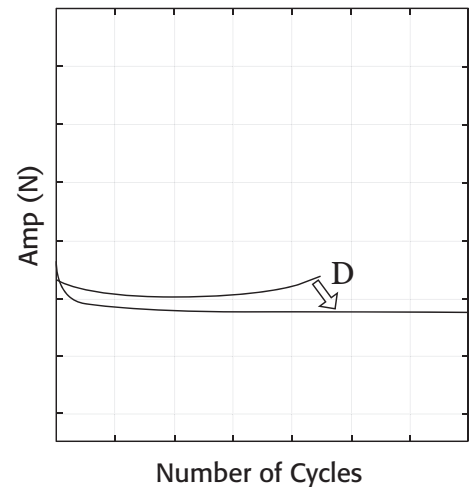
- A. Extending contact time improves lower frequency attenuation
- B. Reducing peak force value reduces overall sound pressure level

#### FREQUENCY DOMAIN FORCE PULSE



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

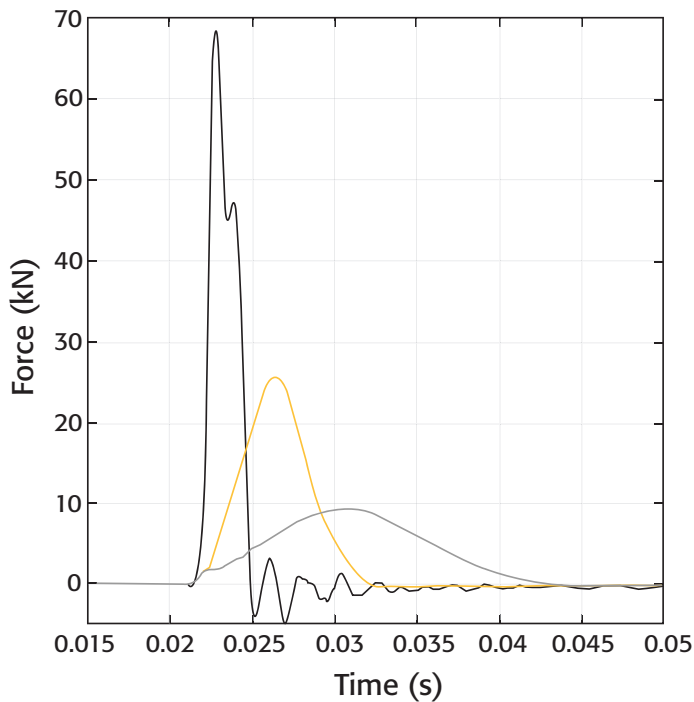
#### DURABILITY



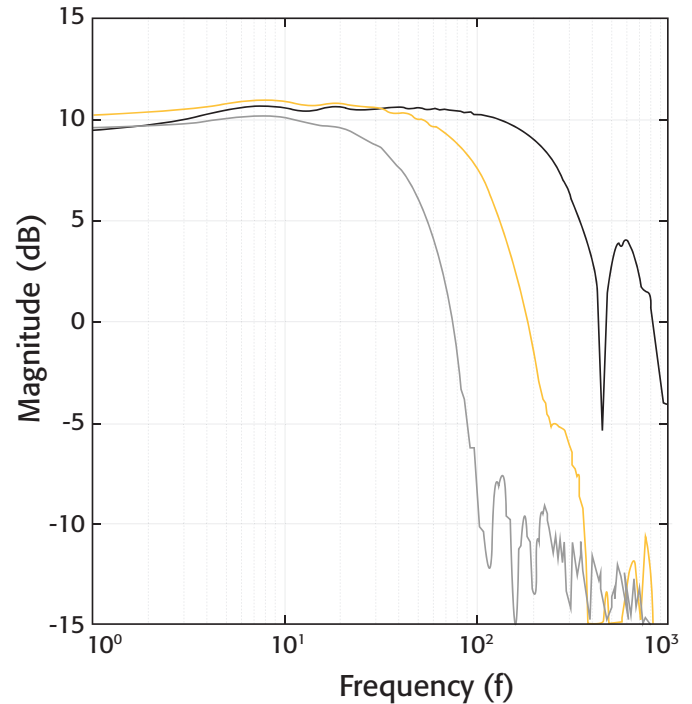
- D. Flattening out durability curve equates to improved product lifetime
- Plot of peak force values taken from repeated force pulse measurements

## 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* |

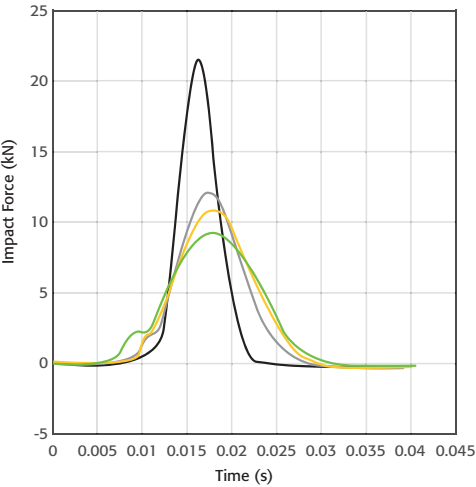
\*Class I available upon request.

# GENIEMAT® xFIT

## GenieMat xFIT TESTING

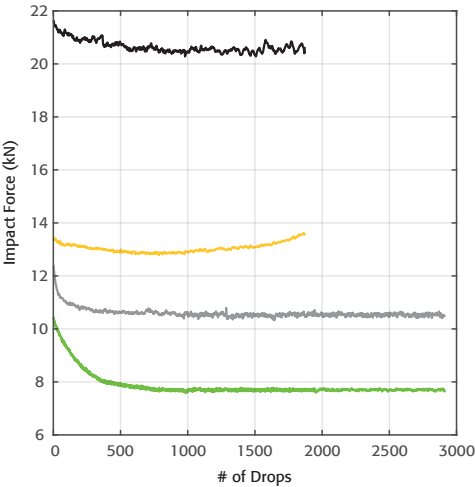
US Patent: US 10,676,920 B2

FORCE PULSE



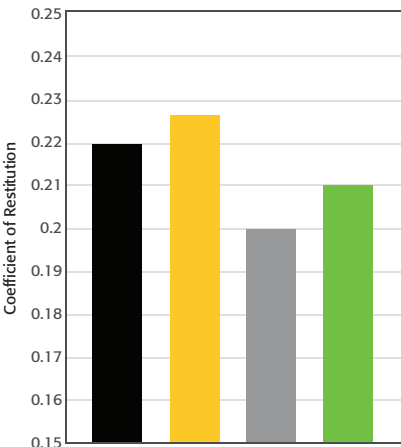
- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

FATIGUE TESTING



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

REBOUND PLOTS

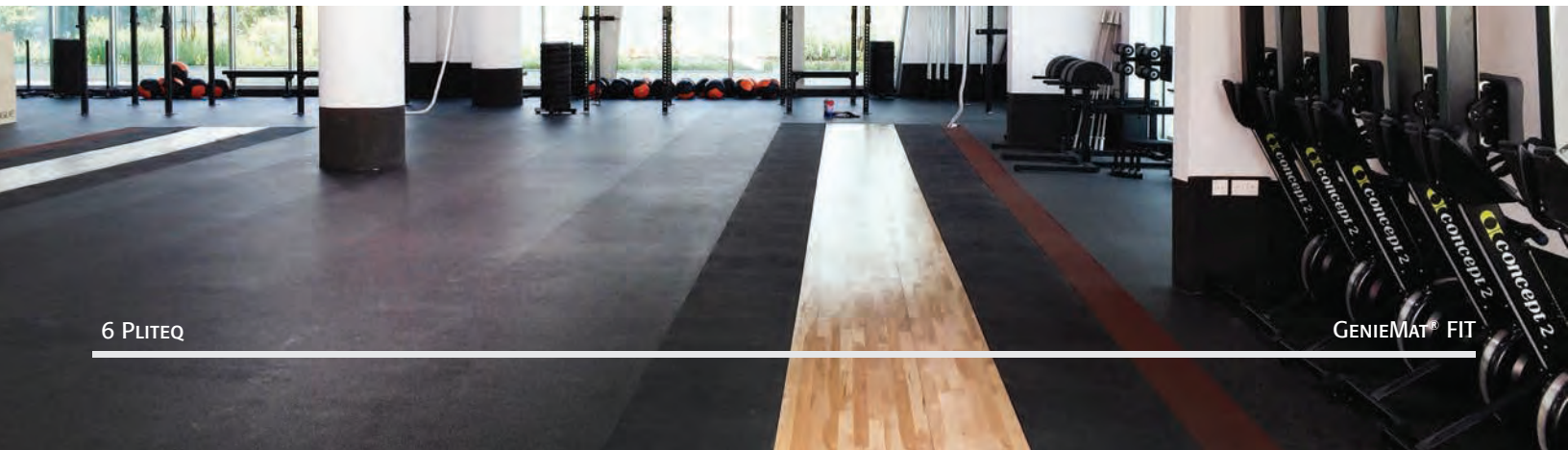


- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

### 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

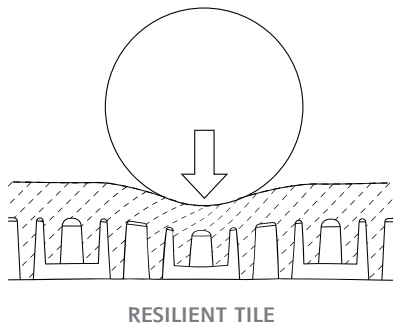


# HYBRID SYSTEM

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

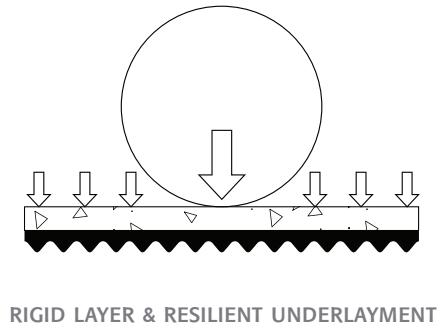
## LOCALLY REACTIVE

APPLIED LOAD RESULTS IN LOCALIZED DEFLECTION

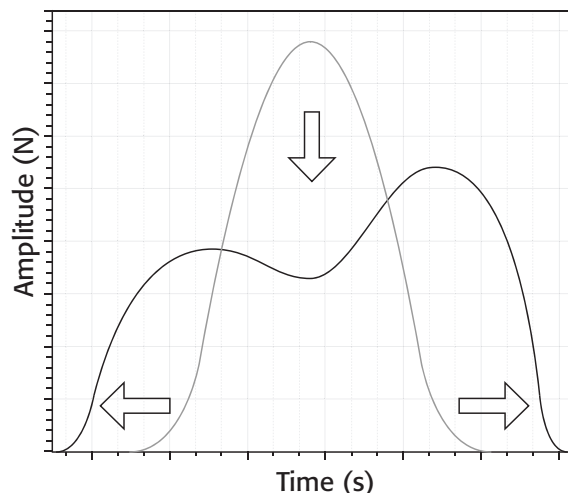
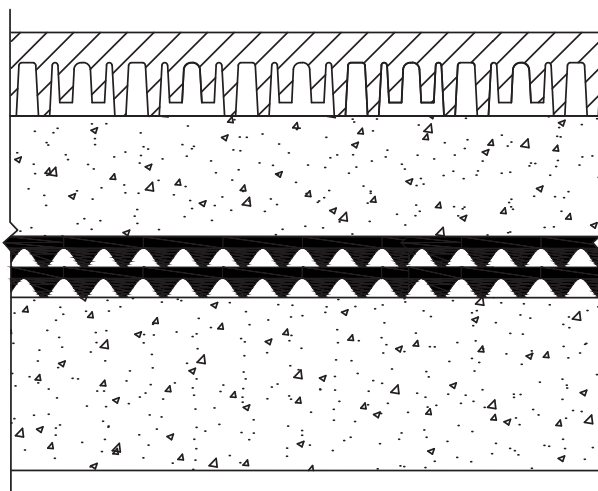


## RESONANTLY REACTIVE

APPLIED LOAD RESULTS IN DISTRIBUTED DEFLECTION

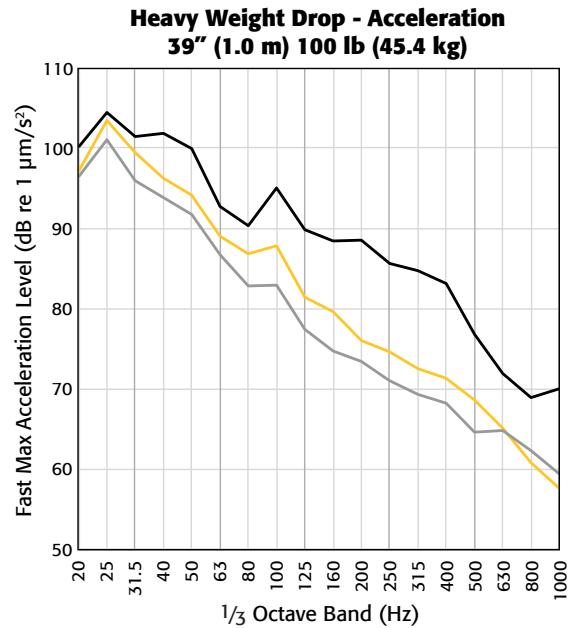
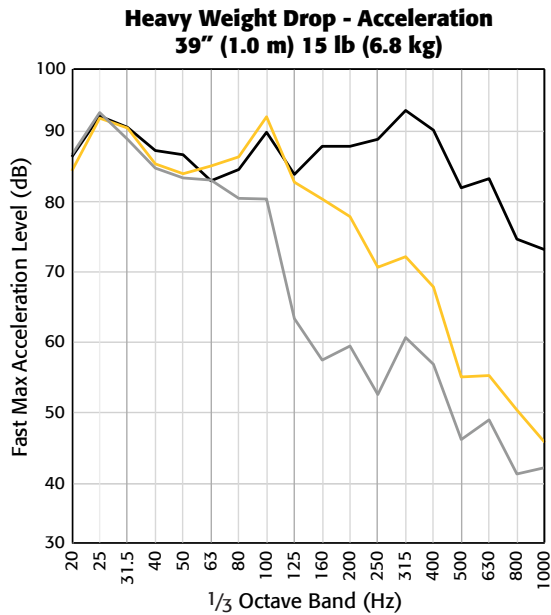


LOCALLY REACTIVE ABOVE RESONANTLY REACTIVE CREATES A HYBRID SYSTEM

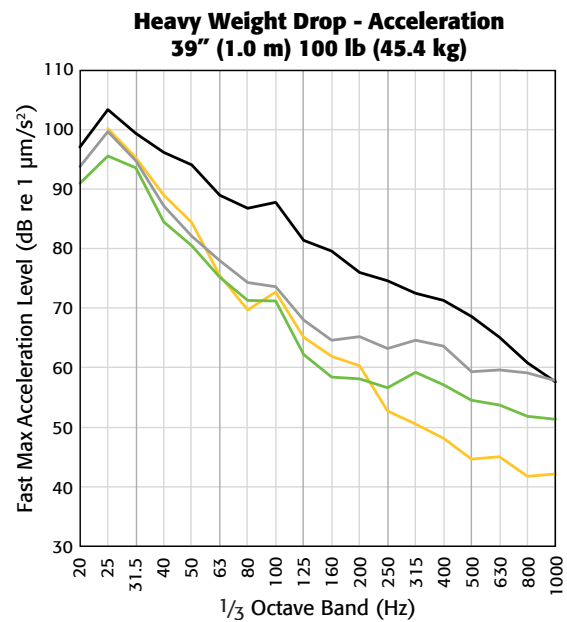
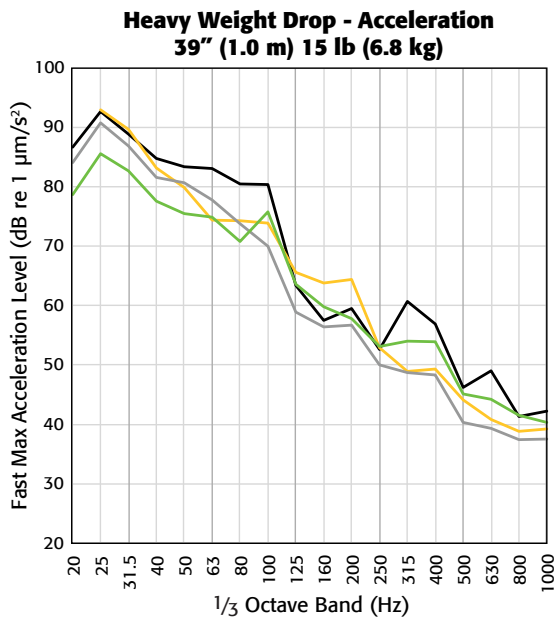


- Helps reduce impact force amplitude and increase force impulse duration
- Ideal for rhythmic excitation such as dance studios and treadmill bays

## TILE DATA

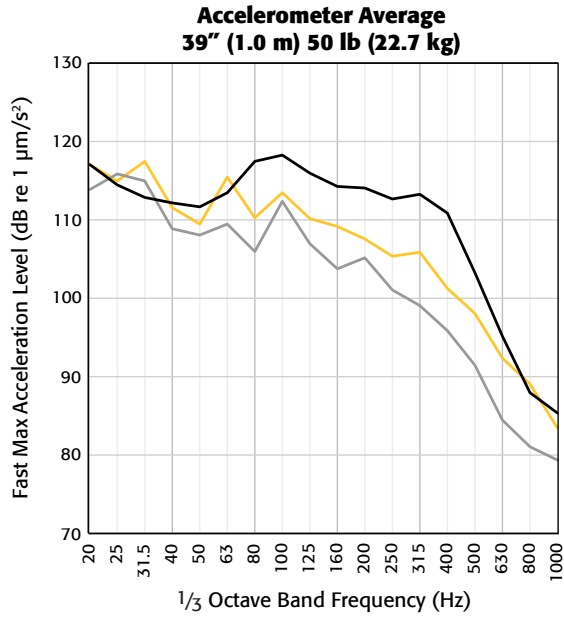


## PLYWOOD HYBRID

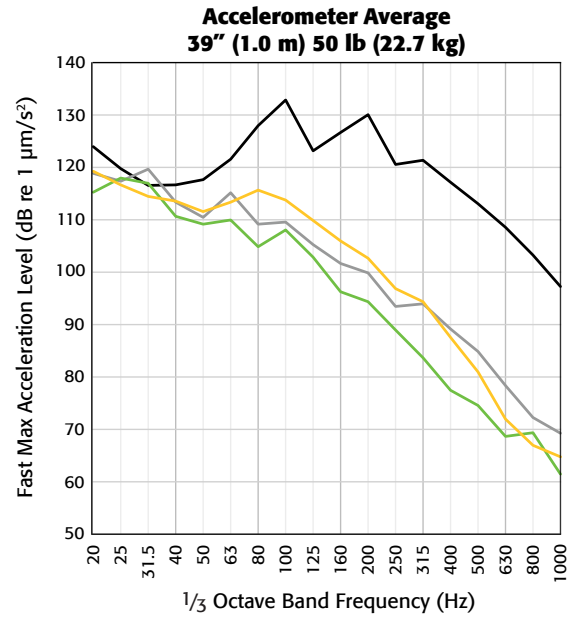


# CONCRETE HYBRID

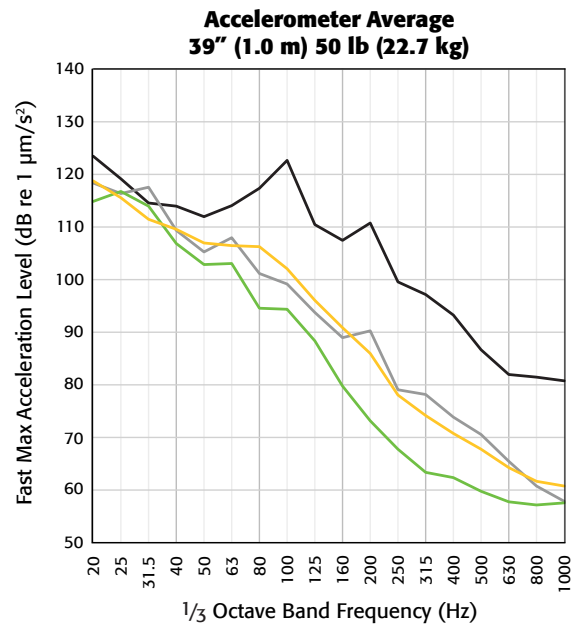
NOTE: FCS - Floating Concrete Slab



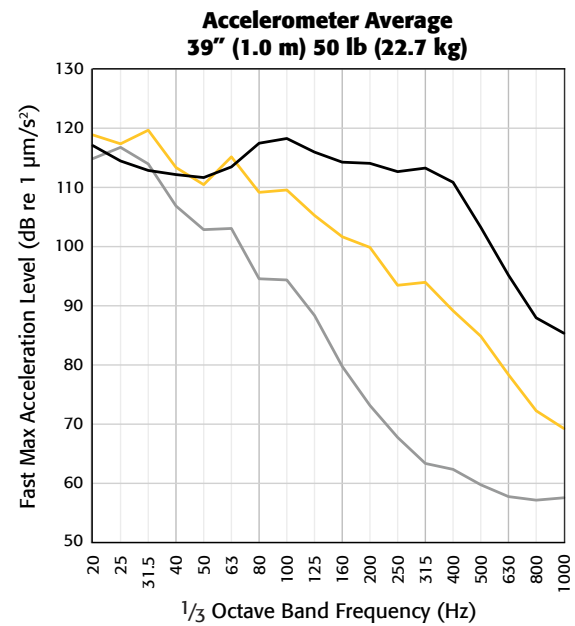
- A1-008867-01F **GenieMat FIT08, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT08, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT08, 4" FCS, GenieMat FF70LDM**



- 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**



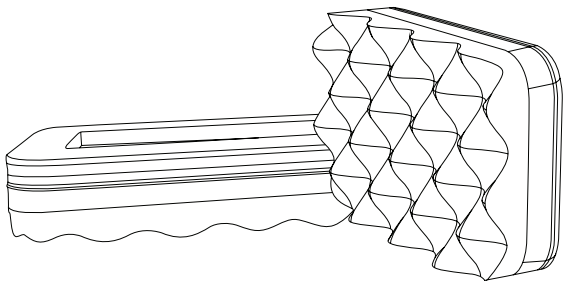
- A1-008867-01F **GenieMat FIT08, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT30, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT70, 4" FCS, GenieMat FF70LDM**

# GENIEMAT® TMIP

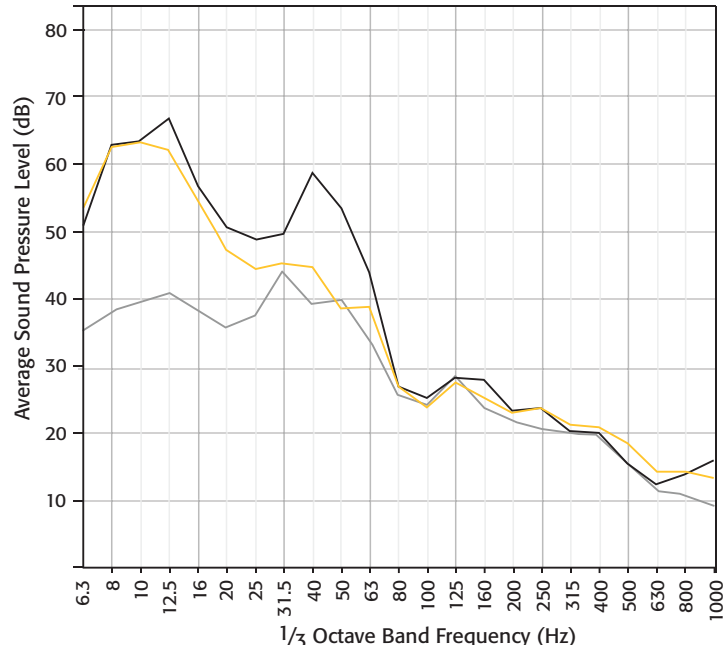
## TREADMILL ISOLATION PADS

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<br>5" x 7" – Rear Mounts                                                                           |
| STATIC DEFLECTION  | Lightweight case: 100 lb user 1.46 psi deflection 1 to 2 cm<br>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

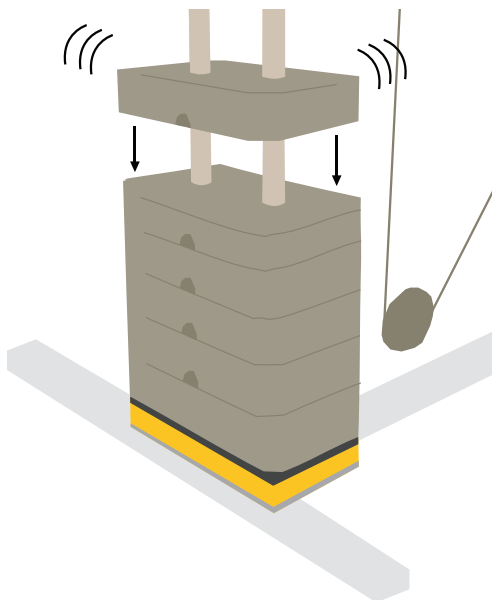
## GENIEMAT® WSI

### WEIGHT STACK ISOLATORS

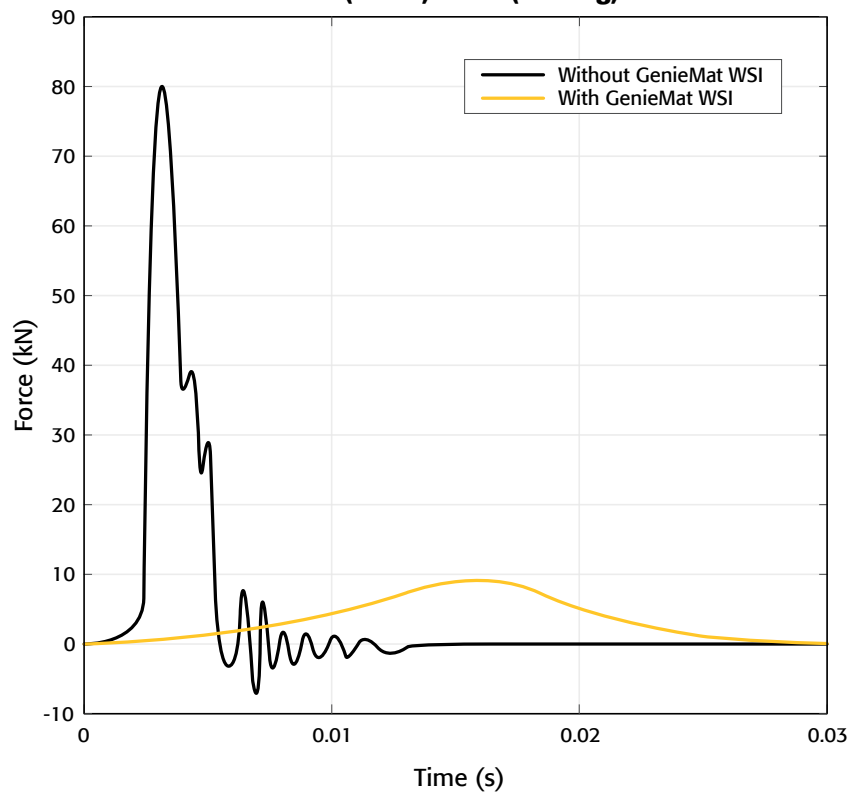
Patent pending

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

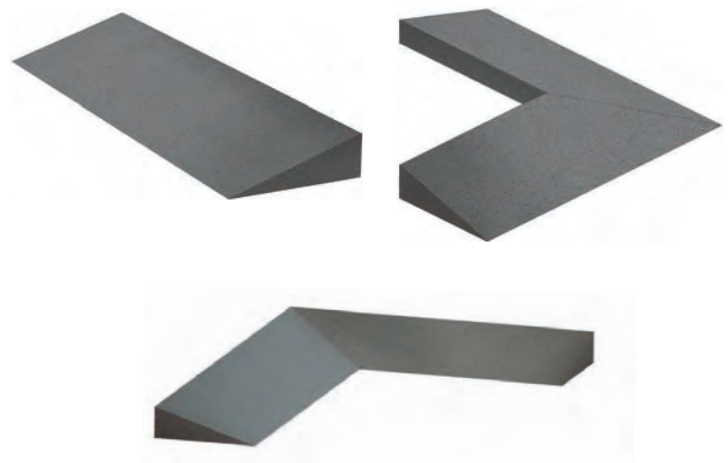


**Force Pulse Comparison**  
20" (0.5 m) 50 lb (22.7 kg)



## 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

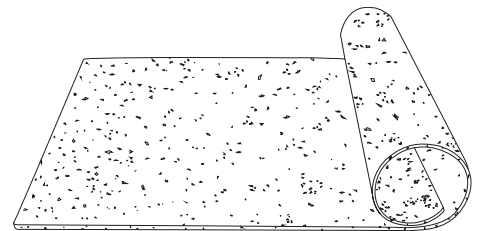




# GENIEMat® FIT08

## 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              |

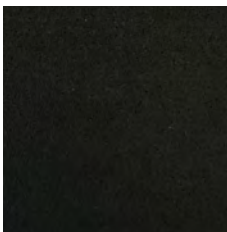
\* Class I available upon request.

\*\* Same as carpet and wood.

# COLOR SELECTION

## GenieMat® FIT STANDARD COLORS

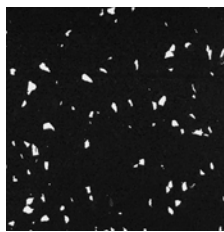
GenieMat FIT tiles are manufactured by fusing a durable wear layer to a recycled rubber crumb base. This provides superior acoustic performance in combination with excellent wear and grip. **GenieMat FIT30** tiles, **GenieMat FIT70** tiles and **GenieMat FITo8** rolls are available in 8 standard color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



BLACK



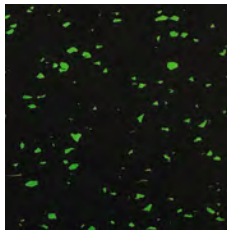
SILVER



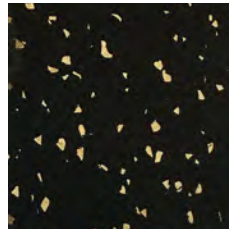
WHITE



BLUE



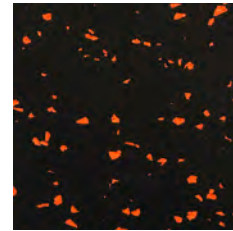
GREEN



CORK



RED



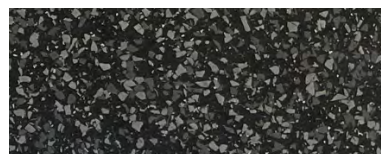
ORANGE

## 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).



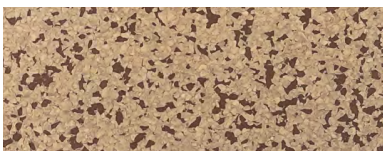
MULCH



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>   | ½" Cement Board, <b>GenieMat FF25</b>             | 80                                                                 | 76                                                                  |
| E5600.27           | <b>GenieMat xFIT70</b>  | ½" Cement Board, <b>GenieMat FF25</b>             | 79                                                                 | 82                                                                  |
| E5600.28           | <b>GenieMat FIT30</b>   | ¾" Plywood, <b>GenieMat FF70</b>                  | 82                                                                 | 86                                                                  |
| E5600.29           | <b>GenieMat FIT70</b>   | ¾" Plywood, <b>GenieMat FF70</b>                  | 80                                                                 | 76                                                                  |
| E5600.30           | <b>GenieMat xFIT70</b>  | ¾" Plywood, <b>GenieMat FF70</b>                  | 78                                                                 | 81                                                                  |
| E5600.31           | <b>GenieMat FIT70</b>   | ¾" Plywood, <b>GenieMat FF70LDM</b>               | 74                                                                 | 72                                                                  |
| E5600.32           | <b>GenieMat xFIT70</b>  | ¾" Plywood, <b>GenieMat FF70LDM</b>               | 72                                                                 | 75                                                                  |
| E5600.33           | Bare                    | ¾" Plywood on 2" x 4" Sleepers, Mason MFS Springs | 74                                                                 | 89                                                                  |
| E5600.34           | <b>GenieMat FIT70</b>   | ¾" Plywood on 2" x 4" Sleepers, Mason MFS Springs | 72                                                                 | 80                                                                  |
| E5600.35           | <b>GenieMat xFIT70</b>  | ¾" 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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