

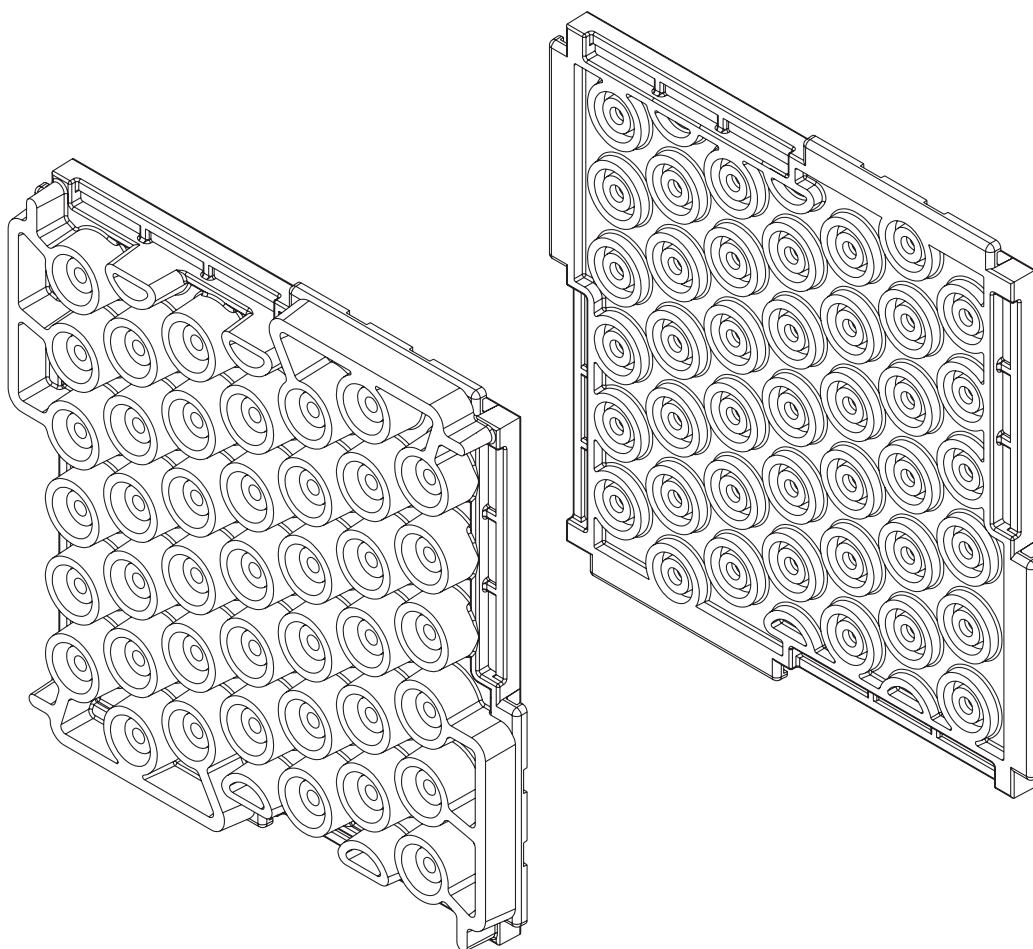


**It's not magic, it's engineering.®**

Impact and Airborne Sound Control

# GENIEMat® FIT

For Weight Drop Impact Insulation



AUSTRALIA EDITION

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.

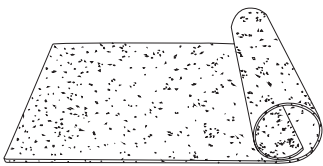
**GenieMat FIT** floors dramatically reduce low frequency impact noise in free weight areas, under cardio equipment and in fitness studios.

|  | 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>(1220 mm x 7620 mm) | 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  $\pm 1/8"$ .

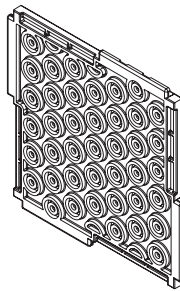




## GenieMat® FIT08

### APPLICATIONS

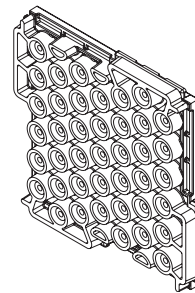
- Entryways/corridors
- Group fitness areas
- Locker rooms
- Spinning studios



## 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

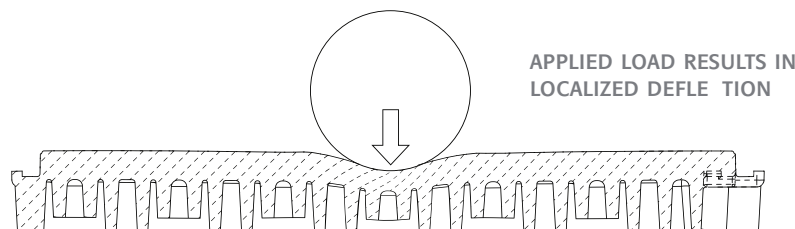
### SIGNIFICANTLY REDUCES STRUCTURE-BORNE VIBRATION

- 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

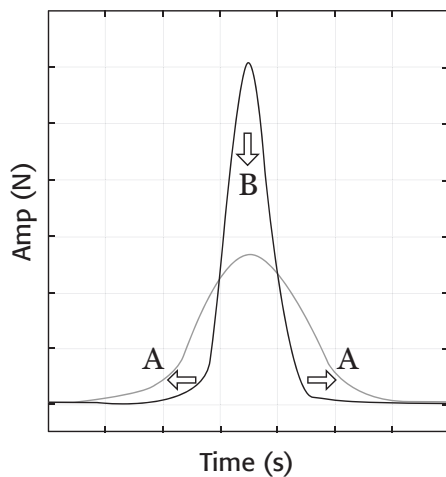
### SEAMLESS, INTERLOCKING FIT

- 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

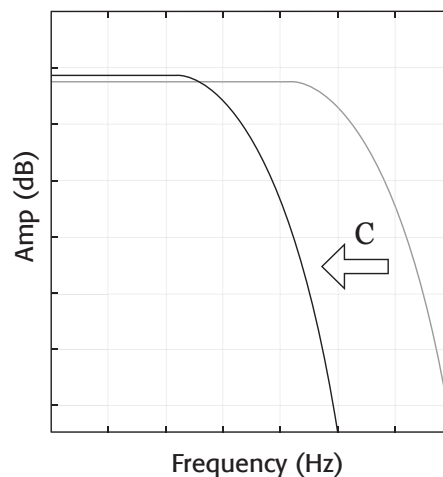


#### TIME DOMAIN FORCE PULSE



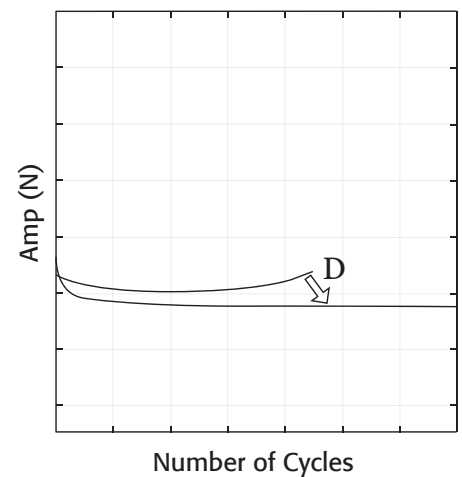
- A. Extending contact time improves lower frequency attenuation
- B. Reducing peak force value reduces overall sound pressure level

#### FREQUENCY DOMAIN FORCE PULSE



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

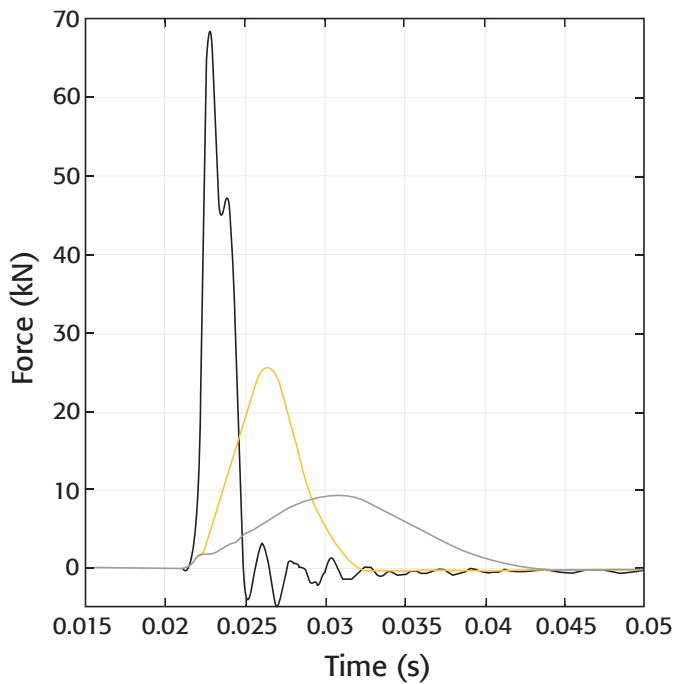
#### DURABILITY



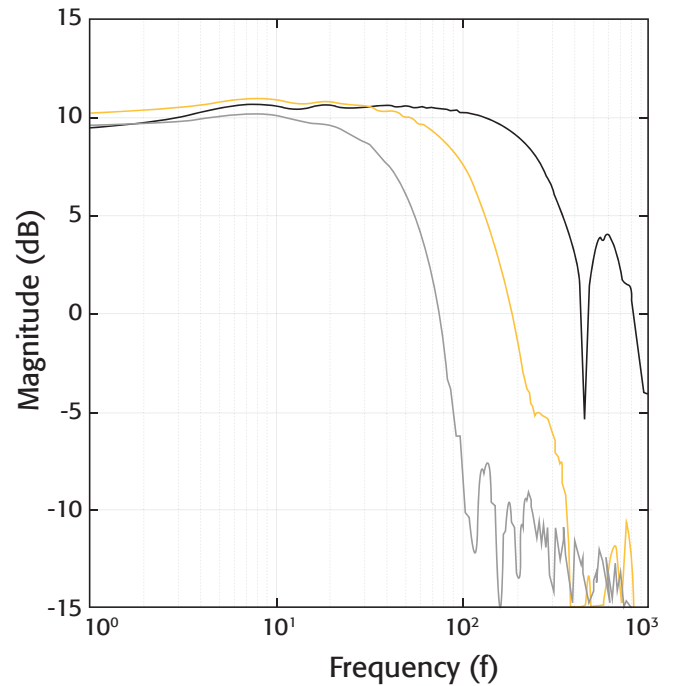
- D. Flattening out durability curve equates to improved product lifetime
- Plot of peak force values taken from repeated force pulse measurements

## 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 | <b>GenieMat® FIT08</b> | <b>GenieMat® FIT30</b> | <b>GenieMat® FIT70</b> |
| Slip Resistance             | ASTM D2047         | 0.90                   | 0.81                   | 0.81                   |
| Tensile Strength            | ASTM D412          | 1.72 N/mm <sup>2</sup> | 0.74 N/mm <sup>2</sup> | 0.63 N/mm <sup>2</sup> |
| 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.

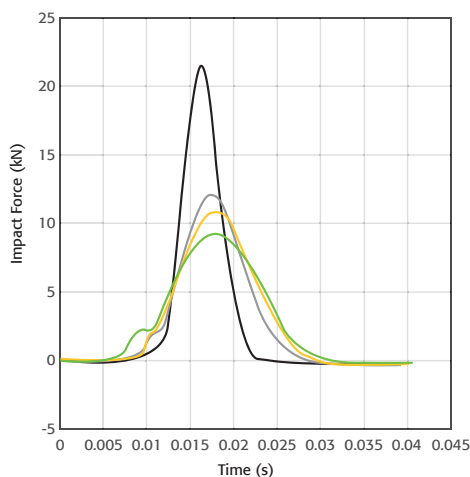


# GENIEMAT® xFIT

## GenieMat xFIT TESTING

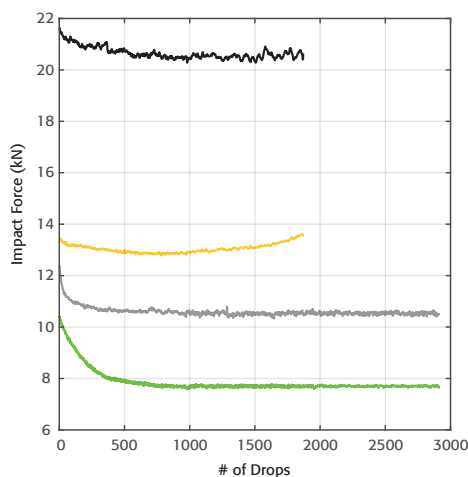
US Patent: US 10,676,920 B2

### FORCE PULSE



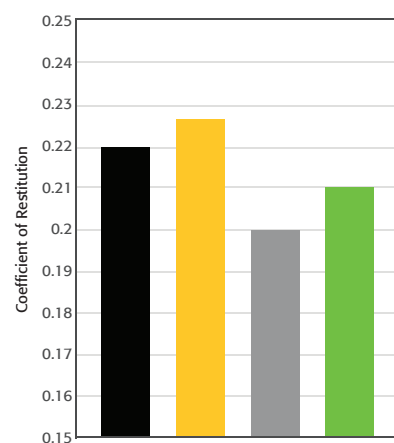
- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

### FATIGUE TESTING



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

### REBOUND PLOTS

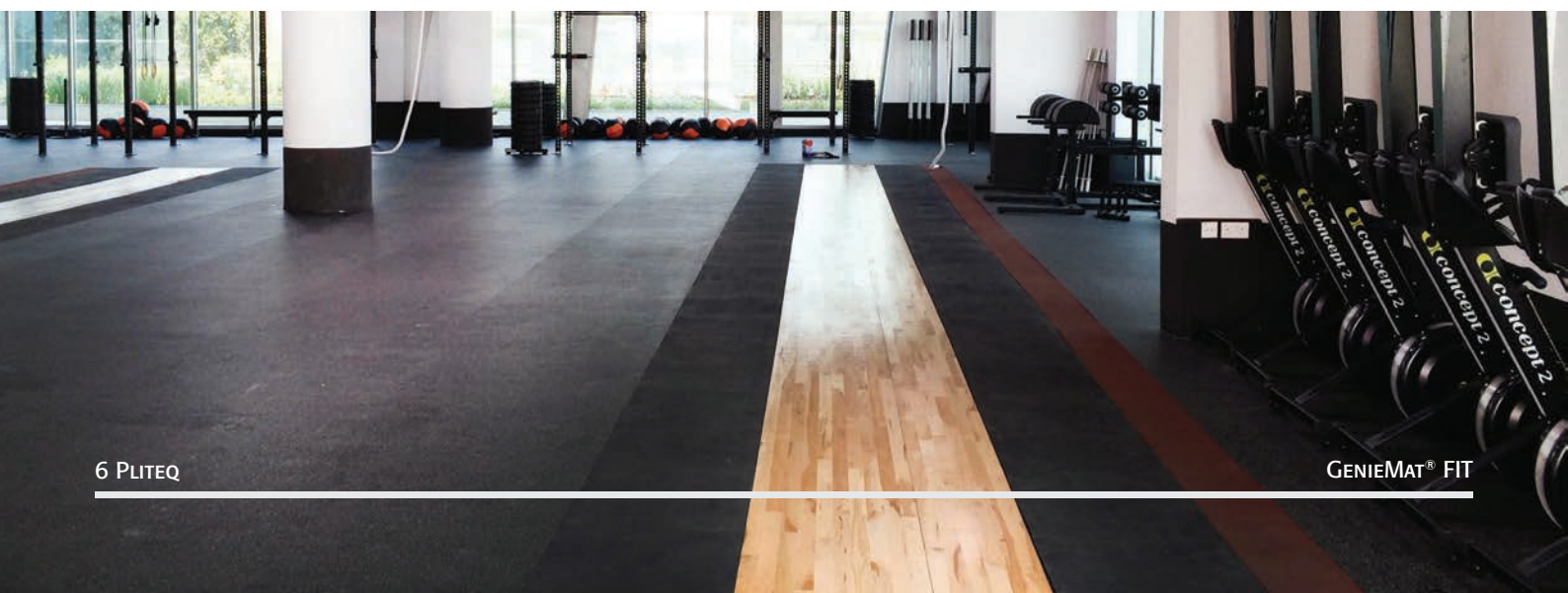


- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

## ENGINEERING DESIGN CHARACTERISTICS

|                | GenieMat xFIT70   | GenieMat xFIT100  |
|----------------|-------------------|-------------------|
| Weight/sf      | 4.2 kg/sf         | 5.3 kg/sf         |
| Thickness      | 70 mm             | 100 mm            |
| Product Finish | Interlocking Tile | Interlocking Tile |

## PLATFORMS

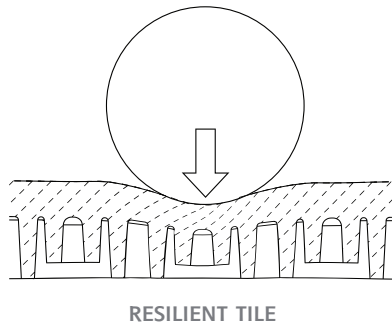


# HYBRID SYSTEM

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

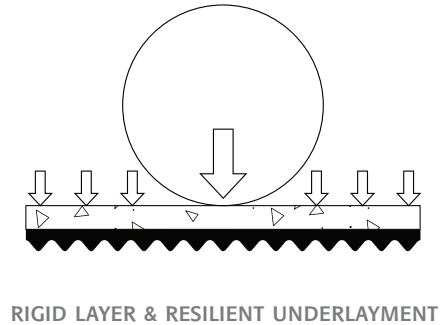
## LOCALLY REACTIVE

APPLIED LOAD RESULTS IN LOCALIZED DEFLECTION

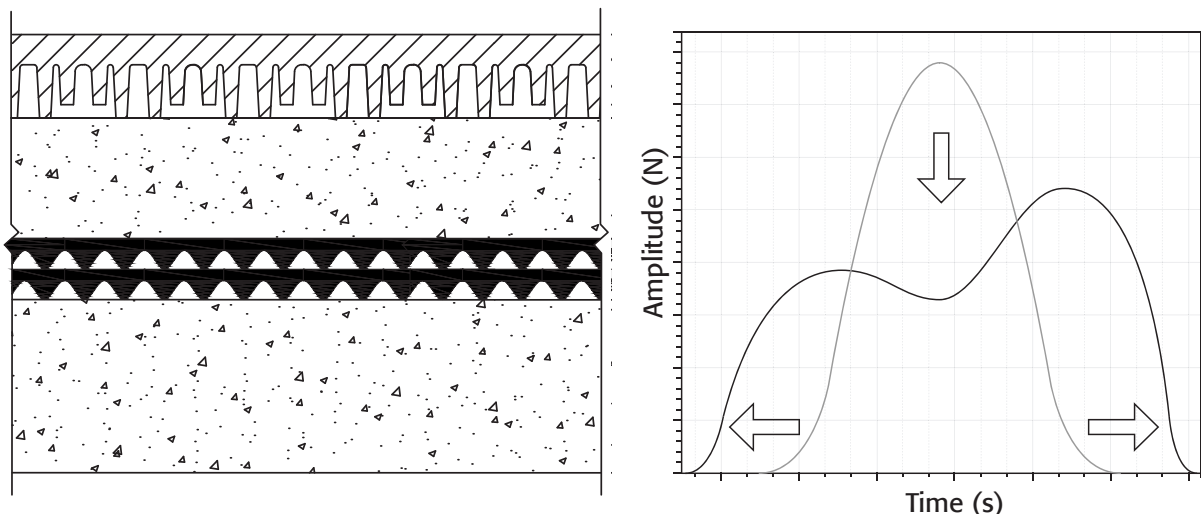


## RESONANTLY REACTIVE

APPLIED LOAD RESULTS IN DISTRIBUTED DEFLECTION



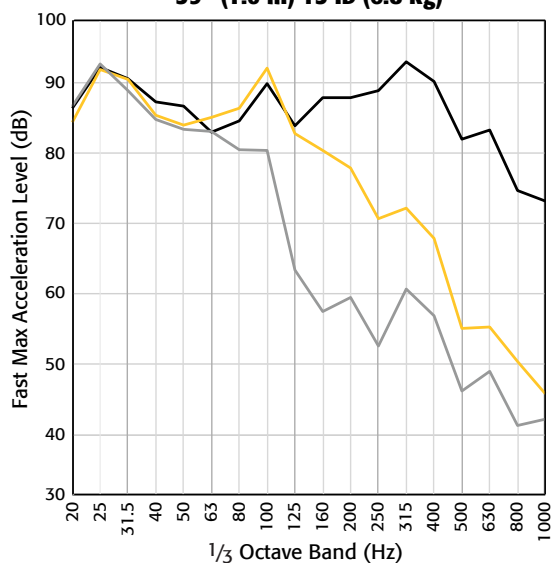
LOCALLY REACTIVE ABOVE RESONANTLY REACTIVE CREATES A HYBRID SYSTEM



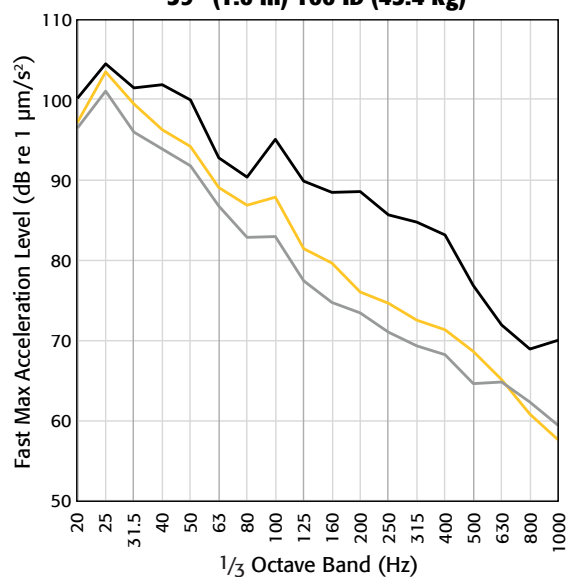
- Helps reduce impact force amplitude and increase force impulse duration
- Ideal for rhythmic excitation such as dance studios and treadmill bays

## TILE DATA

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



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

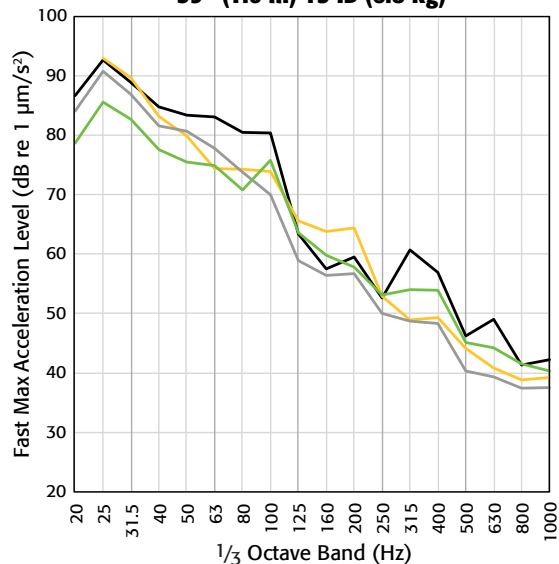


- E5600.12 **GenieMat FIT08**
- E5600.14 **GenieMat FIT30**
- E5600.15 **GenieMat FIT70**

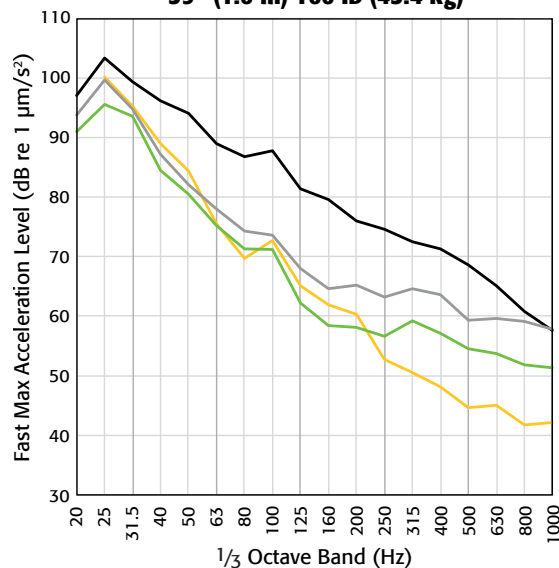
- E5600.15 **GenieMat FIT70**
- E5600.16 **GenieMat xFIT70**
- E5600.17 **GenieMat xFIT100**

## PLYWOOD HYBRID

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



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



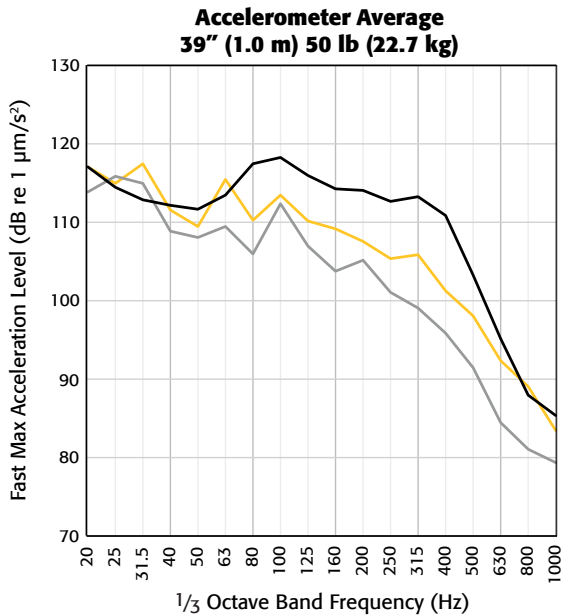
- E5600.15 **GenieMat FIT70**
- E5600.26 **GenieMat FIT70, 12.7 mm Cement Board, GenieMat FF25**
- E5600.29 **GenieMat FIT70, 19 mm Plywood, GenieMat FF70**
- E5600.31 **GenieMat FIT70, 19 mm Plywood, GenieMat FF70LDM**

- E5600.16 **GenieMat xFIT70**
- E5600.27 **GenieMat xFIT70, 12.7 mm Cement Board, GenieMat FF25**
- E5600.30 **GenieMat xFIT70, 19 mm Plywood, GenieMat FF70**
- E5600.32 **GenieMat xFIT70, 19 mm Plywood, GenieMat FF70LDM**

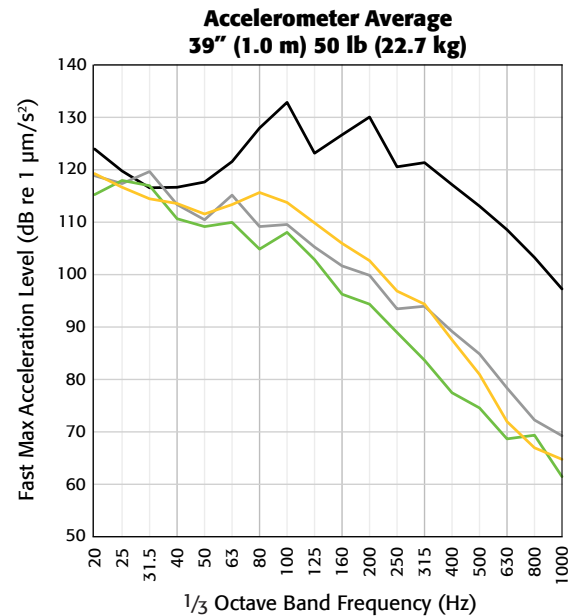


# CONCRETE HYBRID

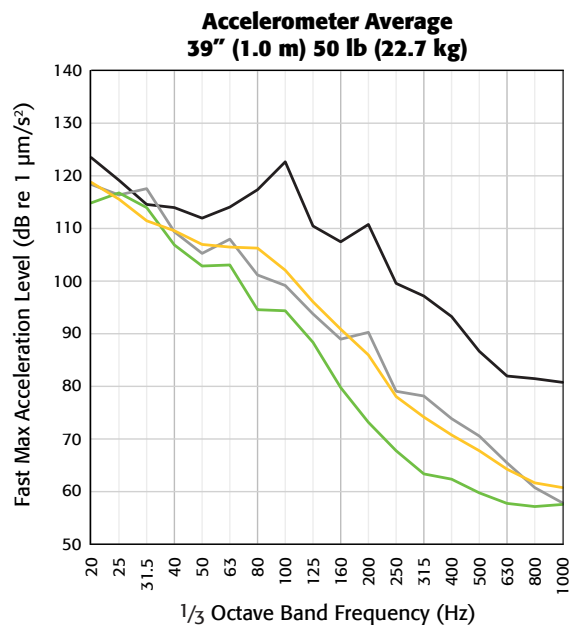
NOTE: FCS - Floating Concrete Slab



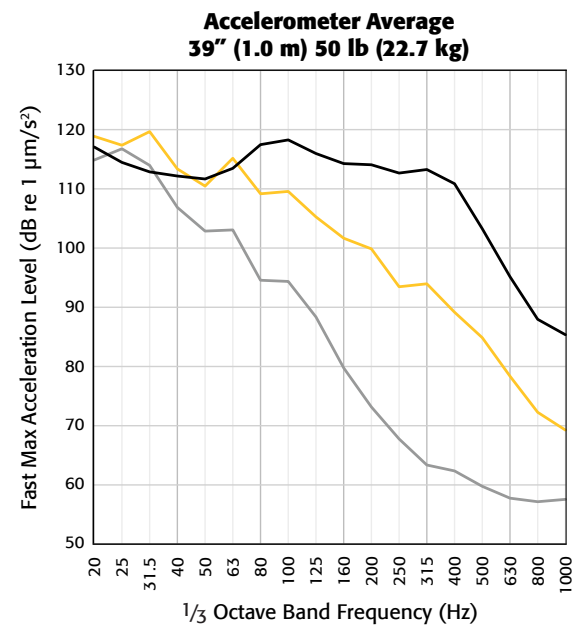
- A1-008867-01F **GenieMat FIT08**, 101.6 mm FCS, **GenieMat FF50**
- A1-008867-04F **GenieMat FIT08**, 101.6 mm FCS, **GenieMat FF70**
- A1-008867-05F **GenieMat FIT08**, 101.6 mm FCS, **GenieMat FF70LDM**



- A1-008867-00F **GenieMat FIT30**
- A1-008867-01F **GenieMat FIT30**, 101.6 mm FCS, **GenieMat FF50**
- A1-008867-04F **GenieMat FIT30**, 101.6 mm FCS, **GenieMat FF70**
- A1-008867-05F **GenieMat FIT30**, 101.6 mm FCS, **GenieMat FF70LDM**



- A1-008867-00F **GenieMat FIT70**
- A1-008867-01F **GenieMat FIT70**, 101.6 mm FCS, **GenieMat FF50**
- A1-008867-04F **GenieMat FIT70**, 101.6 mm FCS, **GenieMat FF70**
- A1-008867-05F **GenieMat FIT70**, 101.6 mm FCS, **GenieMat FF70LDM**



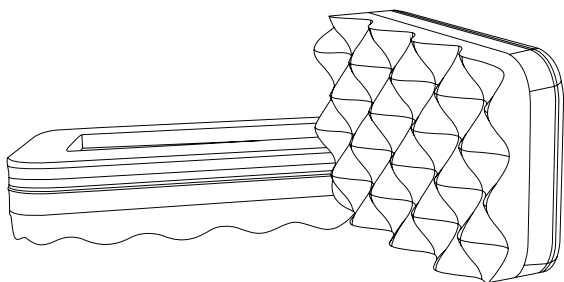
- A1-008867-01F **GenieMat FIT08**, 101.6 mm FCS, **GenieMat FF50**
- A1-008867-04F **GenieMat FIT30**, 101.6 mm FCS, **GenieMat FF70**
- A1-008867-05F **GenieMat FIT70**, 101.6 mm FCS, **GenieMat FF70LDM**

# GENIE<sup>®</sup>MAT<sup>®</sup> TMIP

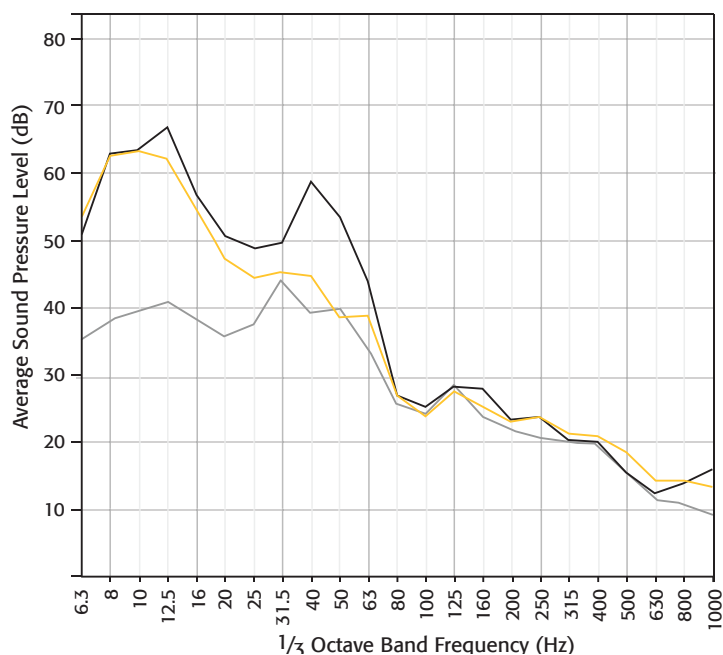
## TREADMILL ISOLATION PADS

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

**GenieMat TMIP** are inherently non-slip. Custom sizes are available for other special applications.



|                    |                                                                                                                                         |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| STANDARD THICKNESS | 51 mm                                                                                                                                   |
| STANDARD SIZES     | 127 mm x 457 mm – Front Mounts<br>127 mm x 178 mm – Rear Mounts                                                                         |
| STATIC DEFLECTION  | Lightweight case: 45 kg user (10.1 kPa load deflection): 1 to 2 c<br>Heavyweight case: 136 kg user (19.0 kPa load deflection): 2 to 3 c |



### ENGINEERED TO REDUCE LOW FREQUENCY IMPACT

Field Measured Average Sound Pressure Levels

- Running with 1 layer of 18 mm rubber
- Running with **GenieMat<sup>®</sup> TMIP** on 1 layer of 18 mm rubber
- Ambient sound level, no running

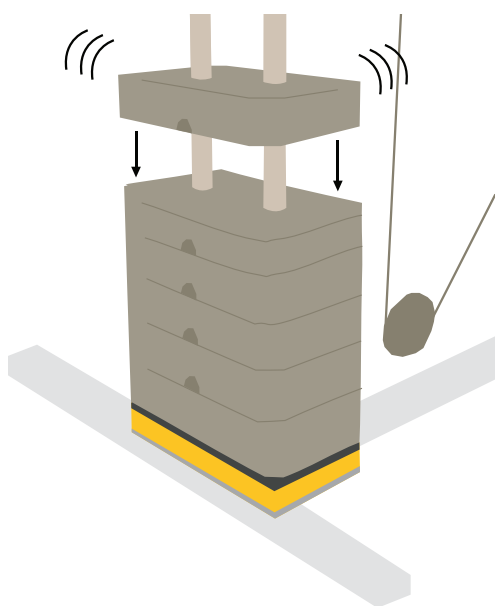
# GENIEMAT® WSI

## WEIGHT STACK ISOLATORS

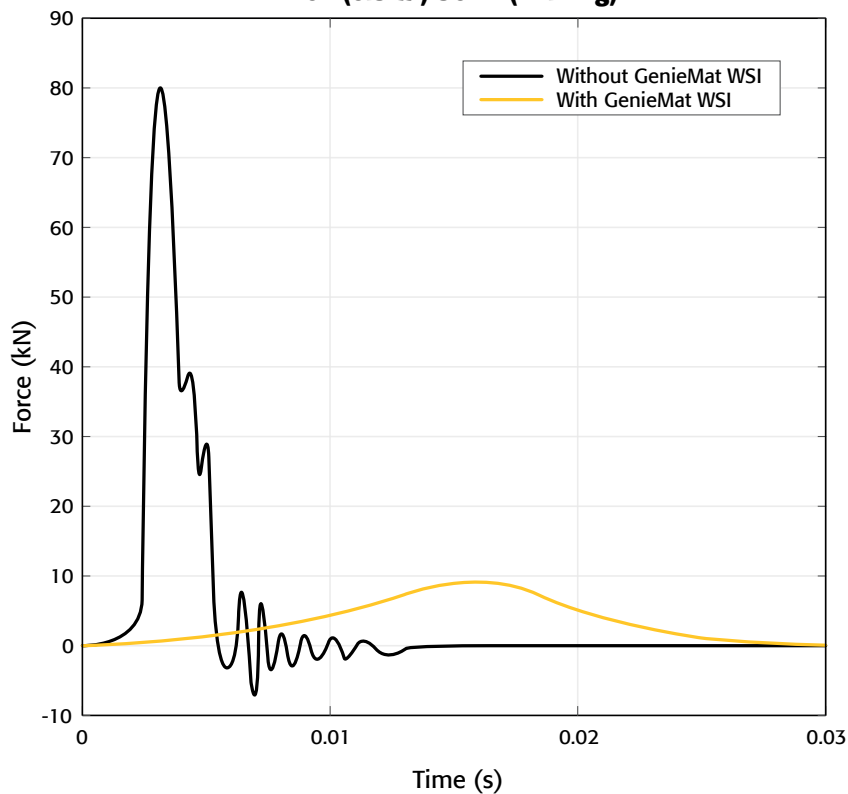
Patent pending

**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

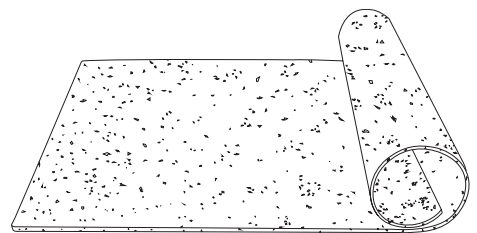
- Customized on site to accommodate any threshold
- Accessories for all installation types
- Corner transitions created in the field
- **GenieMat FASHM** adhesive
- ADA compliant ramps available
- Load plates available to accommodate high point loads



# 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 flu   | D395     | Class I/II*            |
| Flame spread           | E84      | 135**                  |
| Smoke density          | E84      | <450**                 |
| Compression set        | ISO 815  | 5% @ 72 Hrs            |
| Coefficient of frictio | D1894-95 | Wet 1.20 / Dry 1.20    |
| Tear                   | D624     | 5.71 lbf/in            |
| Chemical resistance    | F925-02  | No Change              |

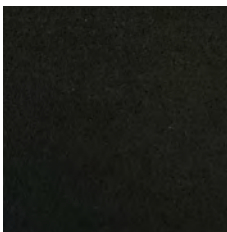
\* Class I available upon request.

\*\* Same as carpet and wood.

# COLOR SELECTION

## GenieMat® FIT STANDARD COLORS

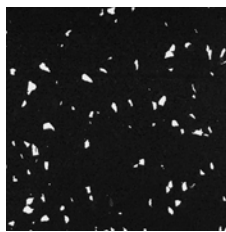
GenieMat FIT tiles are manufactured by fusing a durable wear layer to a recycled rubber crumb base. This provides superior acoustic performance in combination with excellent wear and grip. **GenieMat FIT30** tiles, **GenieMat FIT70** tiles and **GenieMat FITo8** rolls are available in 8 standard color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



BLACK



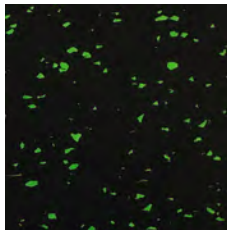
SILVER



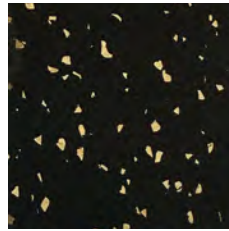
WHITE



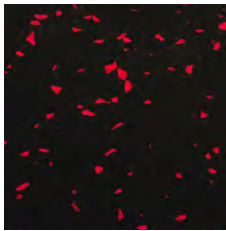
BLUE



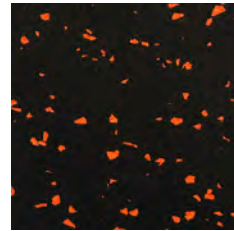
GREEN



CORK



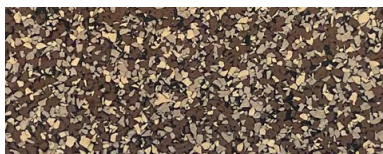
RED



ORANGE

## PREMIUM COLORS

**GenieMat FIT70** tiles and **GenieMat FIT30** tiles are also available in 6 premium color options. For additional custom color formulations please contact your local Pliteq representative (minimum order quantities may apply).



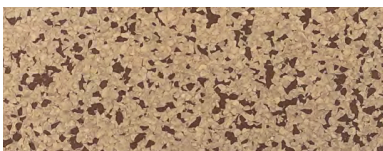
MULCH



OBSIDIAN



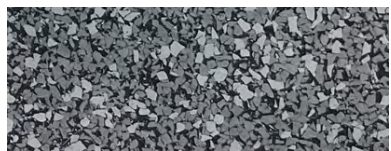
GRANITE



SANDSTONE



CONCRETE



MARBLE

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

# TEST RESULTS

| TEST RESULTS       |                         |                                                          |                                                                     |                                                                      |
|--------------------|-------------------------|----------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------|
| TEST REPORT NUMBER | FINISH FLOOR            | SUBFLOOR SYSTEM*                                         | 6.8 kg HARD IMPACT SOURCE (SPL OF COMBINED 63 Hz OCTAVE BAND IN dB) | 45.4 kg 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>   | 12 mm Cement Board, <b>GenieMat FF25</b>                 | 80                                                                  | 76                                                                   |
| E5600.27           | <b>GenieMat xFIT70</b>  | 12 mm Cement Board, <b>GenieMat FF25</b>                 | 79                                                                  | 82                                                                   |
| E5600.28           | <b>GenieMat FIT30</b>   | 18 mm Plywood, <b>GenieMat FF70</b>                      | 82                                                                  | 86                                                                   |
| E5600.29           | <b>GenieMat FIT70</b>   | 18 mm Plywood, <b>GenieMat FF70</b>                      | 80                                                                  | 76                                                                   |
| E5600.30           | <b>GenieMat xFIT70</b>  | 18 mm Plywood, <b>GenieMat FF70</b>                      | 78                                                                  | 81                                                                   |
| E5600.31           | <b>GenieMat FIT70</b>   | 18 mm Plywood, <b>GenieMat FF70LDM</b>                   | 74                                                                  | 72                                                                   |
| E5600.32           | <b>GenieMat xFIT70</b>  | 18 mm Plywood, <b>GenieMat FF70LDM</b>                   | 72                                                                  | 75                                                                   |
| E5600.33           | Bare                    | 18 mm Plywood on 50 x 100 mm Sleepers, Mason MFS Springs | 74                                                                  | 89                                                                   |
| E5600.34           | <b>GenieMat FIT70</b>   | 18 mm Plywood on 50 x 100 mm Sleepers, Mason MFS Springs | 72                                                                  | 80                                                                   |
| E5600.35           | <b>GenieMat xFIT70</b>  | 18 mm Plywood on 50 x 100 mm Sleepers, Mason MFS Springs | 69                                                                  | 82                                                                   |

\* All assemblies are on 152 mm concrete slab with no ceiling.

## CONTACT US

For Your Project Specific Questions

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**E.** [info@pliteq.com.au](mailto:info@pliteq.com.au)

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