



**TÜV SÜD America Inc.**  
**Product Safety Services**  
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## **IPEMA IMPACT ATTENUATION REPORT – ASTM F1292-17A**

|                                     |                             |
|-------------------------------------|-----------------------------|
| Participant:                        | TUV Report No.:             |
| Main Office Address:                | Report Date:                |
|                                     | Test Date:                  |
| Phone:                              | Selection:                  |
| Manufacturing Location ID:          | Initial:                    |
| Commercial Name of product:         | Follow up                   |
| Date of Manufacture: <u>Unknown</u> | Sample Receipt Date:        |
| No. of samples submitted:           | Ambient Air Temperature: °C |
|                                     | Humidity: %                 |
|                                     | Ref Job:                    |

### **Test Equipment:**

|                                        |                            |
|----------------------------------------|----------------------------|
| Alpha Automation, Triax, TUV System 5: | Environmental Chamber No.: |
| Alpha Automation, Triax, TUV System 4: | Calibration Due Date:      |
| Accelerometer ID:                      | Environmental Chamber No.: |
| Accelerometer Calibration Date:        | Calibration Due Date:      |

### **Loose Fill Material Sample Description:**

|                        |                     |        |
|------------------------|---------------------|--------|
| Engineered Wood Fiber: | Un-compacted Depth: | Inches |
| Loose Fill Wood:       |                     |        |
| Rubber Nuggets:        |                     |        |
| Rubber Buffings:       |                     |        |
| Sand:                  | Compacted Depth:    | Inches |
| Gravel:                |                     |        |
| Other:                 |                     |        |

### **Unitary Sample Description:**

|                  |                         |
|------------------|-------------------------|
| Tiles:           | <b>Total Thickness:</b> |
| Poured in Place: | Top Layer: _____        |
| Other:           | Base Layer: _____       |

### **Turf System Sample Description:**

|            |                         |              |
|------------|-------------------------|--------------|
| Turf:      | Turf Pile Height: _____ | Inches       |
| Pad:       | Pad Thickness: _____    | Inches       |
| Aggregate: | Aggregate: _____        | Inches       |
| Infill:    | Infill Amount: _____    | Lbs./Sq. Ft. |
|            | Infill Type: _____      |              |

### **Comments:**

**The above described sample was tested at :                      Ft.**

The results reported herein reflect the performance of the above described samples at the time of testing and at the temperature(s) reported. The results are specific to the described samples. Samples of surfacing materials that do not closely match the described samples will perform differently. The following data sheet provides an accurate representation of the test results.

**Sample in compliance with ASTM F1292-17a at the temperature and rating specified?                      Yes                      No**

Signature:  Title: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by:  Title: Regional Manager Date: 1/2/2019

Participant:

TUV Report No:

Manufacturing Location ID:

Test Date:

| Drop                         | Specified Impact Height (Ft.) | Reference Temperature -6°C, (21.2°F) |                                         |                 |                               | Reference Temperature 23°C, (73.4°F) |                                         |                 |                               | Reference Temperature 49°C, (120.2°F) |                                         |                 |                               |
|------------------------------|-------------------------------|--------------------------------------|-----------------------------------------|-----------------|-------------------------------|--------------------------------------|-----------------------------------------|-----------------|-------------------------------|---------------------------------------|-----------------------------------------|-----------------|-------------------------------|
|                              |                               | G-Max                                | HIC                                     | Velocity (ft/s) | Theoretical Drop Height (ft.) | G-Max                                | HIC                                     | Velocity (ft/s) | Theoretical Drop Height (ft.) | G-Max                                 | HIC                                     | Velocity (ft/s) | Theoretical Drop Height (ft.) |
| 1                            |                               |                                      |                                         |                 |                               |                                      |                                         |                 |                               |                                       |                                         |                 |                               |
| 2                            |                               |                                      |                                         |                 |                               |                                      |                                         |                 |                               |                                       |                                         |                 |                               |
| 3                            |                               |                                      |                                         |                 |                               |                                      |                                         |                 |                               |                                       |                                         |                 |                               |
| Average                      |                               |                                      |                                         |                 |                               |                                      |                                         |                 |                               |                                       |                                         |                 |                               |
| Measured Surface Temperature |                               | °C                                   | Max. Change from reference + 5°C, (5°F) |                 |                               | 23°C                                 | Max. Change from reference ± 3°C, (5°F) |                 |                               | °C                                    | Max. Change from reference -3°C, (-5°F) |                 |                               |
| Sample Condition:            |                               |                                      |                                         |                 |                               |                                      |                                         |                 |                               |                                       |                                         |                 |                               |

| Drop                         | One foot over<br>(Ft.) | Reference Temperature -6°C, (21.2°F) |                                            |                    |                                     | Reference Temperature 23°C, (73.4°F) |                                            |                    |                                     | Reference Temperature 49°C, (120.2°F) |                                            |                    |                                     |
|------------------------------|------------------------|--------------------------------------|--------------------------------------------|--------------------|-------------------------------------|--------------------------------------|--------------------------------------------|--------------------|-------------------------------------|---------------------------------------|--------------------------------------------|--------------------|-------------------------------------|
|                              |                        | G-Max                                | HIC                                        | Velocity<br>(ft/s) | Theoretical<br>Drop Height<br>(ft.) | G-Max                                | HIC                                        | Velocity<br>(ft/s) | Theoretical<br>Drop Height<br>(ft.) | G-Max                                 | HIC                                        | Velocity<br>(ft/s) | Theoretical<br>Drop Height<br>(ft.) |
| 1                            |                        |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| 2                            |                        |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| 3                            |                        |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| Average                      |                        |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| Measured Surface Temperature |                        | °C                                   | Max. Change from reference + 5°C,<br>(5°F) |                    |                                     | °C                                   | Max. Change from reference + 3°C,<br>(5°F) |                    |                                     | °C                                    | Max. Change from reference<br>-3°C, (-5°F) |                    |                                     |
| Sample Condition:            |                        |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |

| Drop                         | One foot under<br>(Ft.) | Reference Temperature -6°C, (21.2°F) |                                            |                    |                                     | Reference Temperature 23°C, (73.4°F) |                                            |                    |                                     | Reference Temperature 49°C, (120.2°F) |                                            |                    |                                     |
|------------------------------|-------------------------|--------------------------------------|--------------------------------------------|--------------------|-------------------------------------|--------------------------------------|--------------------------------------------|--------------------|-------------------------------------|---------------------------------------|--------------------------------------------|--------------------|-------------------------------------|
|                              |                         | G-Max                                | HIC                                        | Velocity<br>(ft/s) | Theoretical<br>Drop Height<br>(ft.) | G-Max                                | HIC                                        | Velocity<br>(ft/s) | Theoretical<br>Drop Height<br>(ft.) | G-Max                                 | HIC                                        | Velocity<br>(ft/s) | Theoretical<br>Drop Height<br>(ft.) |
| 1                            |                         |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| 2                            |                         |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| 3                            |                         |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| Average                      |                         |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |
| Measured Surface Temperature |                         | °C                                   | Max. Change from reference + 5°C,<br>(5°F) |                    |                                     | °C                                   | Max. Change from reference ± 3°C,<br>(5°F) |                    |                                     | °C                                    | Max. Change from reference<br>-3°C, (-5°F) |                    |                                     |
| Sample Condition:            |                         |                                      |                                            |                    |                                     |                                      |                                            |                    |                                     |                                       |                                            |                    |                                     |



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