



**TÜV SÜD America Inc.**  
**Product Safety Services**  
 47523 Clipper Drive  
 Plymouth, MI 48170  
 Phone: 734.455.4841

**Surfacing Material Report – ASTM F1292-13**

|  |  |
|--|--|
| Client: <u>TigerSports Americas dba TigerTurf Americas</u>       | Project No.: <u>72105807-6</u>                   |
| Manufacturer: <u>TigerSports Americas dba TigerTurf Americas</u> | Report Date: <u>9/22/2015</u>                    |
| Manufacturing Location: <u>Union City, GA</u>                    | Test Date: <u>9/18/2015</u>                      |
| Phone: <u>(855) 773-6688</u>                                     | Initial Test <input checked="" type="checkbox"/> |
| Commercial Name of product: <u>Diamond Pro Fescue - 30mm</u>     | Follow up Test <input type="checkbox"/> Ref Job: |
| Date of Manufacture: <u>Unknown</u>                              | Sample Receipt Date: <u>9/16/2015</u>            |
| No. of samples submitted: <u>1 - 18in. X 18in. Turf System</u>   | Ambient Air Temperature: <u>23.1°C</u>           |
|  | Humidity: <u>33.0%</u>                           |

**Test Equipment:**

|  |                                       |
|--|---------------------------------------|
| Triax System 4: <input checked="" type="checkbox"/>  | Environmental Chamber No.: <u>N/A</u> |
| Triax System 1: <input type="checkbox"/>             | Calibration Due Date: <u>N/A</u>      |
| Accelerometer ID: <u>PLYP00144</u>                   | Environmental Chamber No.: <u>N/A</u> |
| Accelerometer Calibration Due Date: <u>3/11/2016</u> | Calibration Due Date: <u>N/A</u>      |

**Loose fill Material Sample Description:**

|   |   |
|---|---|
| Engineered Wood Fiber: <input type="checkbox"/> | Un-compacted Depth: <u>Unknown</u> Inches |
| Loose Fill Wood: <input type="checkbox"/>       |   |
| Rubber: <input type="checkbox"/>                |   |
| Sand: <input type="checkbox"/>                  | Compacted Depth: <u>4</u> Inches          |
| Aggregate: <input checked="" type="checkbox"/>  |   |
| Other: <input type="checkbox"/>                 |   |

**Turf Sample Description:**

|   |   |
|---|---|
| Diamond Pro Fescue Turf <input checked="" type="checkbox"/> | <b>Total Thickness:</b> <u>3.055in.</u> |
| Poly Pad <input checked="" type="checkbox"/>                | Top Layer: <u>1.875in.</u>              |
| Durafil Infill <input checked="" type="checkbox"/>          | Base Layer: <u>30mm (1.18in.)</u>       |

**Comments:**

- 1.) Turf system received fully assembled in wooden boxes from Client.
- 2.) System: 1.875in. pile Diamond Pro Fescue Turf, infilled w/ 2.0lbs. per sq. ft. Durafil infill, over 30mm (1.18in.) Poly Pad, overlaying 4in. compacted aggregate (unknown un-compacted depth). Total system depth/thickness of approximately 7.055in.

**The above described sample was tested at : 5 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. Compliance with this Standard does not constitute product certification.

Sample in compliance with ASTM F1292-13 at the temperature and rating specified?      Yes            No     

Signature: Timothy Franklin      Title: Project Coordinator      Date: 9/22/15

Reviewed by: [Signature]      Title: Product Safety Engineer      Date: 9/22/15

Client: TigerSports Americas dba TigerTurf Americas

Project No.: 72105807-6

Manufacturer: TigerSports Americas dba TigerTurf Americas

Test Date: 9/18/2015

| 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                            | 5                             |                                      |   |                 | 0.000                         | 125                                  | 550   | 18.0                                    | 5.037                         |                                       |     |                 | 0.000                                   |  |
| 2                            | 5                             |                                      |   |                 | 0.000                         | 151                                  | 734   | 18.0                                    | 5.037                         |                                       |     |                 | 0.000                                   |  |
| 3                            | 5                             |                                      |   |                 | 0.000                         | 134                                  | 601   | 18.0                                    | 5.037                         |                                       |     |                 | 0.000                                   |  |
| Average                      |                               | 0                                    | 0                                       |                 |                               | 142.5                                | 667.5 |   |                               | 0                                     | 0   |                 |   |  |
| Measured Surface Temperature |                               | (-6°C)                               | Max. Change from reference + 5°C, (5°F) |                 |                               |                                      | 23°C  | Max. Change from reference ± 3°C, (5°F) |                               |                                       |     | 49°C            | Max. Change from reference -3°C, (-5°F) |  |
| Sample Condition:            |                               | DRY                                  |   |                 |                               | DRY                                  |       |   |                               | DRY                                   |     |                 |   |  |

| Drop                         | One foot over (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                            |                     |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 2                            |                     |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 3                            |                     |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| Average                      |                     | 0                                    | 0                                       |                 |                               | 0                                    | 0   |   |                               | 0                                     | 0   |                 |   |  |
| Measured Surface Temperature |                     | °C                                   | Max. Change from reference + 5°C, (5°F) |                 |                               |                                      | °C  | Max. Change from reference ± 3°C, (5°F) |                               |                                       |     | °C              | Max. Change from reference -3°C, (-5°F) |  |
| Sample Condition:            |                     |                                      |   |                 |                               |                                      |     |   |                               |                                       |     |                 |   |  |

| Drop                         | One foot under (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                            |                      |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 2                            |                      |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 3                            |                      |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| Average                      |                      | 0                                    | 0                                       |                 |                               | 0                                    | 0   |   |                               | 0                                     | 0   |                 |   |  |
| Measured Surface Temperature |                      | °C                                   | Max. Change from reference + 5°C, (5°F) |                 |                               |                                      | °C  | Max. Change from reference ± 3°C, (5°F) |                               |                                       |     | °C              | Max. Change from reference -3°C, (-5°F) |  |
| Sample Condition:            |                      |                                      |   |                 |                               |                                      |     |   |                               |                                       |     |                 |   |  |



America





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Plymouth, MI 48170  
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**Surfacing Material Report – ASTM F1292-13**

|  |  |
|--|--|
| Client: <u>TigerSports Americas dba TigerTurf Americas</u>       | Project No.: <u>72105807-8</u>                   |
| Manufacturer: <u>TigerSports Americas dba TigerTurf Americas</u> | Report Date: <u>9/22/2015</u>                    |
| Manufacturing Location: <u>Union City, GA</u>                    | Test Date: <u>9/18/2015</u>                      |
| Phone: <u>(855) 773-6688</u>                                     | Initial Test <input checked="" type="checkbox"/> |
| Commercial Name of product: <u>Diamond Pro Fescue - 60mm</u>     | Follow up Test <input type="checkbox"/> Ref Job: |
| Date of Manufacture: <u>Unknown</u>                              | Sample Receipt Date: <u>9/16/2015</u>            |
| No. of samples submitted: <u>1 - 18in. X 18in. Turf System</u>   | Ambient Air Temperature: <u>23.1°C</u>           |
|  | Humidity: <u>33.0%</u>                           |

**Test Equipment:**

|  |                                |
|--|--------------------------------|
| Triax System 4: <input checked="" type="checkbox"/>  | Environmental Chamber No.: N/A |
| Triax System 1: <input type="checkbox"/>             | Calibration Due Date: N/A      |
| Accelerometer ID: <u>PLYP00144</u>                   | Environmental Chamber No.: N/A |
| Accelerometer Calibration Due Date: <u>3/11/2016</u> | Calibration Due Date: N/A      |

**Loose fill Material Sample Description:**

|   |   |
|---|---|
| Engineered Wood Fiber: <input type="checkbox"/> | Un-compacted Depth: <u>Unknown</u> Inches |
| Loose Fill Wood: <input type="checkbox"/>       |   |
| Rubber: <input type="checkbox"/>                |   |
| Sand: <input type="checkbox"/>                  | Compacted Depth: <u>4</u> Inches          |
| Aggregate: <input checked="" type="checkbox"/>  |   |
| Other: <input type="checkbox"/>                 |   |

**Turf Sample Description:**

|   |                                   |
|---|-----------------------------------|
| Diamond Pro Fescue Turf <input checked="" type="checkbox"/> | Total Thickness: <u>4.235in.</u>  |
| Poly Pad <input checked="" type="checkbox"/>                | Top Layer: <u>1.875in.</u>        |
| Durafil Infill <input checked="" type="checkbox"/>          | Base Layer: <u>60mm (2.36in.)</u> |

**Comments:**

- 1.) Turf system received fully assembled in wooden boxes from Client.
- 2.) System: 1.875in. pile Diamond Pro Fescue Turf, infilled w/ 2.0lbs. per sq. ft. Durafil infill, over 60mm (2.36in.) Poly Pad, overlaying 4in. compacted aggregate (unknown un-compacted depth). Total system depth/thickness of appoximately 8.235in.

**The above described sample was tested at : 7 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. Compliance with this Standard does not constitute product certification.

Sample in compliance with ASTM F1292-13 at the temperature and rating specified? Yes  No

Signature: Timothy Franklin Title: Project Coordinator Date: 9/22/15

Reviewed by: [Signature] Title: Product Safety Engineer Date: 9/22/15

Client: **TigerSports Americas dba TigerTurf Americas**

Project No.: **72105807-8**

Manufacturer: **TigerSports Americas dba TigerTurf Americas**

Test Date: **9/18/2015**

| 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                            | 7                             |                                      |   |                 | 0.000                         | 101                                  | 524  | 21.3                                    | 7.053                         |                                       |     |                 | 0.000                                   |  |
| 2                            | 7                             |                                      |   |                 | 0.000                         | 110                                  | 591  | 21.3                                    | 7.053                         |                                       |     |                 | 0.000                                   |  |
| 3                            | 7                             |                                      |   |                 | 0.000                         | 107                                  | 567  | 21.3                                    | 7.053                         |                                       |     |                 | 0.000                                   |  |
| Average                      |                               | 0                                    | 0                                       |                 |                               | 108.5                                | 579  |   |                               | 0                                     | 0   |                 |   |  |
| Measured Surface Temperature |                               | (-6°C)                               | Max. Change from reference + 5°C, (5°F) |                 |                               |                                      | 23°C | Max. Change from reference ± 3°C, (5°F) |                               |                                       |     | 49°C            | Max. Change from reference -3°C, (-5°F) |  |
| Sample Condition:            |                               | DRY                                  |   |                 |                               | DRY                                  |      |   |                               | DRY                                   |     |                 |   |  |

| Drop                         | One foot over (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                            |                     |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 2                            |                     |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 3                            |                     |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| Average                      |                     | 0                                    | 0                                       |                 |                               | 0                                    | 0   |   |                               | 0                                     | 0   |                 |   |  |
| Measured Surface Temperature |                     | °C                                   | Max. Change from reference + 5°C, (5°F) |                 |                               |                                      | °C  | Max. Change from reference ± 3°C, (5°F) |                               |                                       |     | °C              | Max. Change from reference -3°C, (-5°F) |  |
| Sample Condition:            |                     |                                      |   |                 |                               |                                      |     |   |                               |                                       |     |                 |   |  |

| Drop                         | One foot under (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                            |                      |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 2                            |                      |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| 3                            |                      |                                      |   |                 | 0.000                         |                                      |     |   | 0.000                         |                                       |     |                 | 0.000                                   |  |
| Average                      |                      | 0                                    | 0                                       |                 |                               | 0                                    | 0   |   |                               | 0                                     | 0   |                 |   |  |
| Measured Surface Temperature |                      | °C                                   | Max. Change from reference + 5°C, (5°F) |                 |                               |                                      | °C  | Max. Change from reference ± 3°C, (5°F) |                               |                                       |     | °C              | Max. Change from reference -3°C, (-5°F) |  |
| Sample Condition:            |                      |                                      |   |                 |                               |                                      |     |   |                               |                                       |     |                 |   |  |



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