



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</u>	Project No.: <u>72105807-5</u>
Manufacturer: <u>Americas</u>	Report Date: <u>9/22/2015</u>
Manufacturing Location: <u>Union City, GA</u>	Test Date: <u>9/18/15 and 9/21/15</u>
Phone: <u>(855) 773-6688</u>	Initial Test <input checked="" type="checkbox"/>
Commercial Name of product: <u>Diamond Pro Spring - 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>3 - 18in. X 18in. Turf Systems</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>PLYP00101</u>
Triax System 1: <input type="checkbox"/>	Calibration Due Date: <u>6/22/2016</u>
Accelerometer ID: <u>PLYP00144</u>	Environmental Chamber No.: <u>PLYP00069</u>
Accelerometer Calibration Due Date: <u>3/11/2016</u>	Calibration Due Date: <u>6/22/2016</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 Spring Turf: <input checked="" type="checkbox"/>	Total Thickness: <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 Spring 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 AmericasProject No.: 72105807-5Manufacturer: TigerSports Americas dba TigerTurf AmericasTest Date: 9/18/15 and 9/21/15

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	115	492	17.9	4.981	127	572	18.0	5.037	159	736	18.0	5.037
2	5	131	602	17.9	4.981	128	581	18.1	5.093	175	878	18.0	5.037
3	5	136	618	17.9	4.981	139	637	18.1	5.093	198	1053	18.1	5.093
Average		133.5	610			133.5	609			186.5	965.5		
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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Surfacing Material Report – ASTM F1292-13

Client: <u>TigerSports Americas dba TigerTurf Americas</u>	Project No.: <u>72105807-7</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>9/18/15 and 9/21/15</u>
Phone: <u>(855) 773-6688</u>	Initial Test <input checked="" type="checkbox"/>
Commercial Name of product: <u>Diamond Pro Spring - 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>3 - 18in. X 18in. Turf Systems</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>PLYP00101</u>
Triax System 1: <input type="checkbox"/>	Calibration Due Date: <u>6/22/2016</u>
Accelerometer ID: <u>PLYP00144</u>	Environmental Chamber No.: <u>PLYP00069</u>
Accelerometer Calibration Due Date: <u>3/11/2016</u>	Calibration Due Date: <u>6/22/2016</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 Spring 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 Spring 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 approximately 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 AmericasProject No.: 72105807-7Manufacturer: TigerSports Americas dba TigerTurf AmericasTest Date: 9/18/15 and 9/21/15

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	115	662	21.3	7.053	107	582	21.3	7.053	97	465	21.3	7.053
2	7	126	727	21.3	7.053	113	618	21.4	7.119	103	500	21.3	7.053
3	7	128	742	21.3	7.053	117	628	21.4	7.119	106	535	21.3	7.053
Average		127	734.5			115	623			104.5	517.5		
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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