



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>72105807-13</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>Pet Turf - 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:

Pet Turf <input checked="" type="checkbox"/>	Total Thickness: <u>2.18in.</u>
Poly Pad <input checked="" type="checkbox"/>	Top Layer: <u>1.00in.</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: 1.00in. pile Pet 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 6.18in.

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.: 72105807-13

Manufacturer: TigerSports Americas dba TigerTurf Americas

Test 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	98	436	18.0	5.037	116	494	18.0	5.037	128	587	18.1	5.093
2	5	113	509	18.0	5.037	123	525	18.0	5.037	141	671	18.1	5.093
3	5	112	488	18.0	5.037	129	563	18.0	5.037	143	681	18.1	5.093
Average		112.5	498.5			126	544			142	676		
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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Surfacing Material Report – ASTM F1292-13

Client: <u>TigerSports Americas dba TigerTurf Americas</u>	Project No.: <u>72105807-14</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>Pet Turf - 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:

Pet Turf <input checked="" type="checkbox"/>	Total Thickness: <u>3.36in.</u>
Poly Pad <input checked="" type="checkbox"/>	Top Layer: <u>1.00in.</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: 1.00in. pile Pet 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 7.36in.

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.: 72105807-14

Manufacturer: TigerSports Americas dba TigerTurf Americas

Test 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	113	685	21.3	7.053	113	650	21.3	7.053	97	465	21.3	7.053
2	7	118	697	21.3	7.053	120	698	21.3	7.053	100	491	21.4	7.119
3	7	124	732	21.3	7.053	123	702	21.4	7.119	107	550	21.4	7.119
Average		121	714.5			121.5	700			103.5	520.5		
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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