



TUV SUD America Inc.

Product Safety Services

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### IPEMA Surfacing Material Report – ASTM F1292-09

Client: **Robertson Industries**  
 Manufacturer: **Robertson Industries**  
 Manufacturing Location: **Phoenix, AZ**  
 Phone: **(800) 858-0519**  
 Commercial Name of product: **TotTurf Synthetic Turf (SP-10)**  
 Date of Manufacture: **Unknown**  
 No. of samples submitted: **3 - 18in. X 18in. Systems**

TUV Report No.: **Q11201882**  
 Report Date: **2/28/2012**  
 Test Date: **2/27/12 and 2/28/12**  
 Initial Test   
 Follow up Test  **Ref Job:**  
 Sample Receipt Date: **2/22/2012**  
 Ambient Air Temperature: **22.1°C**  
 Humidity: **22.0%**

#### Test Equipment:

Triax System 1: <input checked="" type="checkbox"/>	Environmental Chamber No.: <b>PLYP00101</b>
Triax System 2: <input type="checkbox"/>	Calibration Due Date: <b>8/1/12</b>
Accelerometer ID: <b>PLYP00089</b>	Environmental Chamber No.: <b>PLYP00069</b>
Accelerometer Calibration Due Date: <b>6/1/2012</b>	Calibration Due Date: <b>8/1/12</b>

#### Loose fill Material Sample Description:

Engineered Wood Fiber: <input type="checkbox"/>	Un-compacted Depth: _____ Inches
Loose Fill Wood: <input type="checkbox"/>	
Rubber: <input type="checkbox"/>	
Sand: <input type="checkbox"/>	Compacted Depth: _____ Inches
Gravel: <input type="checkbox"/>	
Other: <input type="checkbox"/>	

#### Unitary Sample Description:

Tiles <input type="checkbox"/>	<b>Total Thickness:</b> <u>6.0in.</u>
SBR <input checked="" type="checkbox"/>	Top Layer: <u>1.5in.</u>
Turf <input checked="" type="checkbox"/>	Base Layer: <u>4.5in.</u>

#### Comments:

System: 1.5in. turf overlaying 4.5in. SBR base. Turf infilled with approximately 6lbs. of sand.

**The above described sample was tested at :      10      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 F1292-09 at the temperature and rating specified?      Yes       No

Signature: Timothy Fanchini

Date: 2/28/12

Reviewed by: [Signature]

Date: 2/28/2012

Client: Robertson Industries

TUV Report No. QI1201882

Manufacturer: Robertson Industries

Test Date: 2/27/12 and 2/28/12

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)	G-Max	HIC	Velocity (ft/s)	G-Max	HIC	Velocity (ft/s)
1	10	101	689	25.4	92	571	25.3	89	541	25.3
2	10	106	699	25.5	102	646	25.5	96	584	25.4
3	10	108	715	25.5	104	658	25.5	99	595	25.5
Average		107	707		103	652		97.5	589.5	
Measured Surface Temperature		(-6°C)	Max. Change from reference + 5°C ,(9°F)		24°C	Max. Change from reference 3°C ,(5.4°F) ±		49°C	Max. Change from reference -3°C ,(-5.4°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)	G-Max	HIC	Velocity (ft/s)	G-Max	HIC	Velocity (ft/s)
1										
2										
3										
Average		0	0		0	0		0	0	
Measured Surface Temperature		°C	Max. Change from reference + 5°C ,(9°F)		°C	Max. Change from reference 3°C ,(5.4°F) ±		°C	Max. Change from reference -3°C ,(-5.4°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)	G-Max	HIC	Velocity (ft/s)	G-Max	HIC	Velocity (ft/s)
1										
2										
3										
Average		0	0		0	0		0	0	
Measured Surface Temperature		°C	Max. Change from reference + 5°C ,(9°F)		°C	Max. Change from reference 3°C ,(5.4°F) ±		°C	Max. Change from reference 3°C ,(-5.4°F)	
Sample Condition:										



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