



TÜV SÜD America Inc.

Product Safety Services

47523 Clipper Drive

Plymouth, MI 48170

Phone: 734.455.4841

IPEMA Impact Attenuation Report – ASTM F1292-13

Participant: **XGrass Inc**
 Main Office Address: **PO Box 579**
Rocky Face, GA 30740
 Phone: **706 272 0140**
 Manufacturing Location ID: **Dalton, GA**
 Commercial Name of product: **XGrass Prime 53 oz (6 ft system)**
 Date of Manufacture: **Unknown**
 No. of samples submitted: **3 Turf tile systems**

TUV Report No.: **QI1407999-1, Rev.1**
 Report Date: **9/9/2014**
 Test Date: **8/11/14 & 8/12/14**
 Selection: Initial:
 Follow up **Ref Job:**
 Sample Receipt Date: **7/9/2014**
 Ambient Air Temperature: **21.9°C**
 Humidity: **44.0%**
 Initial Report Date: **8/12/2014**

Test Equipment:

Triax System 4:	<input checked="" type="checkbox"/>	Environmental Chamber No.:	PLYP00101
Triax System 1:	<input type="checkbox"/>	Calibration Due Date:	6/17/15
Accelerometer ID:	PLYP00121	Environmental Chamber No.:	PLYP00069
Accelerometer Calibration Due Date:	1/22/2015	Calibration Due Date:	6/17/15

Loose fill Material Sample Description:

Engineered Wood Fiber:	<input type="checkbox"/>	Un-compacted Depth:	4.5 Inches
Loose Fill Wood:	<input type="checkbox"/>		
Rubber:	<input type="checkbox"/>		
Sand:	<input type="checkbox"/>	Compacted Depth:	4 Inches
Stone / aggregate:	<input checked="" type="checkbox"/>		
Other:	<input type="checkbox"/>		

Unitary Sample Description:

Turf Tile System	<input checked="" type="checkbox"/>	Total Thickness:	2.675 in.
Poured in Place	<input type="checkbox"/>	Turf Layer:	1.55 in.
Other	<input type="checkbox"/>	Pad Layer:	1.125 in.



Comments:

XGrass Prime 53oz turf tiles embedded with with 3 lbs/sq ft Envirofill silica, covering 1.125 in. pad panel, (1.25in measured), overlying 4 in. compacted 3/4 in stone / patio paver stone dust aggregate blend. Report, revision 1, editorial.

The above described sample was tested at : 6 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 F1292-13 at the temperature and rating specified? Yes No

Signature: 
 Reviewed by: 

Title: Project Coordinator Date: 9/9/14
 Title: Regional mgr. Date: 9/9/2014

Client: **XGrass Inc**

TUV Report No.

QI1407999-1, Rev.1

Manufacturer: **XGrass Inc**

Test Date:

8/11/14 & 8/12/14

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	6	155	823	19.7	6.033	132	663	19.8	6.095	158	813	19.8	6.095	
2	6	153	795	19.7	6.033	147	753	19.8	6.095	189	1060	19.8	6.095	
3	6	156	824	19.7	6.033	149	751	19.8	6.095	183	1037	19.8	6.095	
Average		154.5	809.5			148	752			186	1048.5			
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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