

TÜV SÜD America Inc. **Product Safety Services** 1755 Atlantic Blvd. Auburn Hills, MI 48326

Phone: (616) 546-4600

<u>IPEMA Impact Attenuation Report – ASTM F1292-22</u>

Participant: Polyloom dba Tencate G	Grass T	UV Report No.: <u>72186757-1a</u>
Main Office Address: 1131 Broadway St.		Report Date: 2/8/2023
Dayton, TN 37321 Phone: 423.413.7028	Selection:	Test Date: 2/8/2023 Initial: ✓
Manufacturing Location ID: Dayton, TN	Selection.	Follow up Ref Job:
Commercial Name of product:Pet Turf (C000075)	 Sample	Receipt Date: 1/27/2023
Date of Manufacture: <u>Unknown</u>	Ambient .	Air Temperature: <u>23.4</u> °C
No. of samples submitted: See Comments	To a 4 Equation as a 44	Humidity: 25 %
Alpha Automation, Triax, TUV System 5:	Test Equipment:	I Chamber No.:PLYP00069
Alpha Automation, Triax, TUV System 7:		ation Due Date: 8/30/2023
	_	
Accelerometer ID: PLY		I Chamber No.: AE-029
Accelerometer Calibration Date: 7/18		ation Due Date: 8/30/2023
Loose	Fill Material Sample Description:	
Engineered Wood Fiber:	Un-compacted Depth:	Inches
Loose Fill Wood:		
Rubber Nuggets:		
Rubber Buffings:		
Sand:	Compacted Depth:	Inches
Gravel:		
Other:		
—	Initary Sample Description:	
Tiles:		tal Thickness:
Poured in Place:]]	Top Layer:
Other:	_ _	<u> </u>
_		Base Layer:
	f System Sample Description:	in Pilo Hoimbted O Joshoo
Turf: 🔽		furf Pile Height: 1.0 Inches
Pad: ▼		Pad Thickness: 2.0 Inches
Aggregate:		Aggregate: 4.0 Inches
Infill: 🔽		Infill Amount: 2.0 Lbs./Sq. Ft.
Comments:		Infill Type: Envirofill
 Customer submitted: eighteen (18) whole pieces of turf; twenty two (22) seamed pieces of t 2.) Pet Turf (1.0 inch Pile Height)- infilled with 2.0 lbs per sq. ft. of Envirofill infill (grain size #1 3.) Least Favorable Impact Location was Center Turf/Center Pad 4.) Last Favorable Impact Location report is 72186757-1b 		
The maximum critical fall height of the above described sample was		
The results reported herein reflect the performance of the above on the described samples. Samples of surfacing materials that do an accurate representation of the test results.		
Sample in compliance with ASTM F1292-22 at the temperatur	re and rating specified?	No 🗌
Signature: 7im Lockstein	Title: Project Safety Technician	Date: 2/8/2023
Signature: 7im Lockstein Reviewed by: Timethy Tombia	Title: Project Safety Technician	Date: 2/21/2023
<i>/</i>		

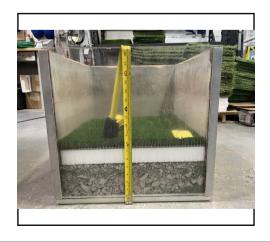
Participant: Polyloom dba Tencate Grass TUV Report No: 72186757-1a

Manufacturing Location ID: Dayton, TN Test Date: 2/8/2023

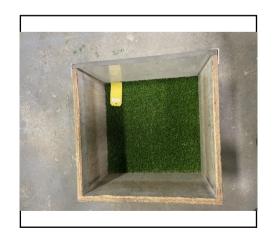
	Critical	Refe	rence Tempe	rature -4°C, (25°F)	Refe	erence Tempe	rature 23°C, (73°F)	Refe	ence Temper	ature 49°C, (1	120°F)	
Drop	Fall Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	
1	9	121	827	24.2	9.10	124	846	24.3	9.18	133	882	24.2	9.10	
2	9	133	917	24.2	9.10	133	904	24.3	9.18	147	996	24.2	9.10	
3	9	136	945	24.2	9.10	138	964	24.2	9.10	130	807	24.1	9.03	
Avei	rage	134.5	931.0			135.5 934.0				138.5	901.5			
Measured Surfa	ce Temperature	-4°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	ange from refe (5°F)	erence + 3°C,	49°C	Max.	Change from -3°C, (-5°I		
Sample C	ondition:		Dry				Dry				Dry			

		Refe	erence Tempe	rature -4°C, (25°F)	Refe	rence Tempe	rature 23°C, (73°F)	Refe	rence Temper	ature 49°C, (1	120°F)
Drop	One foot over (Ft.)	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	10	142	1061	25.6	10.19	132	965	25.6	10.19	147	1008	25.5	10.11
2	10	140	1056	25.5	10.11	137	1009	25.5	10.11	179	1309	25.5	10.11
3	10	155	1173	25.6	10.19	161	1181	25.5	10.11	196	1434	25.5	10.11
Aver	age	147.5	1114.5			149.0	1095.0			187.5	1371.5		
Measured Surfac	ce Temperature	-4°C	May Change from reference + 5°C			23°C	Max. Cha	inge from refe (5°F)	erence + 3°C,	49°C	Max.	Change from -3°C, (-5°I	
Sample Co	ondition:		[Ory			[Ory		Dry			

		Refe	erence Tempe	rature -4°C, (25°F)	Refe	erence Tempe	rature 23°C, (73°F)	Refer	ence Temper	ature 49°C, (120°F)
Drop	One foot under (Ft.)	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	8	112	713	22.9	8.15	112	722	22.9	8.15	117	726	22.8	8.08
2	8	119	769	22.9	8.15	122	773	22.8	8.08	136	818	22.9	8.15
3	8	120	749	22.9	8.15	130	804	22.8	8.08	153	941	22.8	8.08
Aver	rage	119.5	759.0			126.0	788.5			144.5	879.5		
Measured Surfa	ce Temperature	-4°C	Max Change from reference + 5°C			23°C	Max. Cha	ange from refe (5°F)	erence + 3°C,	49°C	Max.	Change from -3°C, (-5°l	
Sample C	ondition:		Dry			Dry				Dry			









TÜV SÜD America Inc.

Product Safety Services 1755 Atlantic Blvd. Auburn Hills, MI 48326

Phone: (616) 546-4600

IPEMA Surfacing Material Report - Least Favorable Impact Location - ASTM F1292-22

	Part Control
Participant: Polyloom dba Tencate Grass Main Office Address: 1131 Broadway St. Dayton, TN 37321 Phone: 423.413.7028 Manufacturing Location ID_Dayton, TN Commercial Name of Product: Pet Turf (C000075) Date of Manufacture: Unknown No. of samples submitted: See Comments	Project No.:72186757-1b Report Date:2/7/2023 Test Date:2/7/2023 Selection: Initial Test: Follow up Test: Ref Job: Sample Receipt Date:1/27/2023 Ambient Air Temperature:23.4°C Humidity:25%
<u>Test E</u>	quipment:
Alpha Automation, Triax, TUV System 5:	Environmental Chamber No.:PLYP00069
Alpha Automation, Triax, TUV System 7: 🔽	Calibration Due Date 8/30/2023
Accelerometer ID:PLYP00226	Environmental Chamber No. AE-029
Accelerometer Calibration Date: 7/18/2022	Calibration Due Date 8/30/2023
Unitary Sample	Layer Description:
Tiles:	Total Thickness: 7.0in.
Poured in Place:	Top Layer: See Comments
Turf: 🔽	Base Layer: See Comments
at the locations indicated on Pages 2 and 3. Impact Location: Least Favorable Impact	ge (%) of maximum allowable value, based on g-max or HIC, as tested Reference Temperature:
Location was determined at: Center Turf/Center Pad	23°C
 (27) 2.0 inch intersection pad, and 150lbs infill. 5.) Pet Turf (1.0in. Pile Height)— infilled with 2.0 lbs per sq. ft. of Envirofill infill (grain size #16.) Determine Critical Fall Height Report 72186757-1a. 	of turf; fifty five (55) 2.0 inch center pads, twenty seven (27) 2.0 inch seamed pads, twenty seven 2/20 mesh) – over 2.0 inch Tiger Playground Pad – overlaying 4in. of compacted aggregate.
The above described sample was tested	at: ⁹ Ft.
	uples at the time of testing and at the temperature(s) reported. The results are specificatch the described samples will perform differently. The following data sheet provides
Sample in compliance with ASTM F1292-22 at the temperature and rating	specified? Yes 🗹 No 🗌
Signature: Title: Proj	ect Engineering Technician Date: 2/8/2023
Reviewed by: Title: Proj	ect Safety Technician Date: 2/21/2023

Participant:	Polyloom dba Tencate Grass	Project No.: <u>72186757-1b</u>
Manufacturing Location ID:	Dayton, TN	Test Date: <u>2/7/2023</u>

Impact Location: Center Turf/Center Pad

	Specified	Refe	rence Temper	ature -4°C, (2	5°F)	Refere	nce Temperati	are 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°I	F)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	9	121	827	24.2	9.10	124	846	24.3	9.18	133	882	24.2	9.10
2	9	133	917	24.2	9.10	133	904	24.3	9.18	147	996	24.2	9.10
3	9	136	945	24.2	9.10	138	964	24.2	9.10	130	807	24.7	9.48
Avei	age	134.5	931.0			135.5	934.0			138.5	901.5		
Measured Surfa	ce Temperature	-4°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	nge from refer (±5°F)	rence + 3°C,	49°C	Max.	Change from a -3°C, (-5°F	
Sample C	ondition:		DRY			D	RY				RY		
Perce	entage (%) of ma	ximum allow	DRY num allowable values (g-max and HIC):				67.8%	HIC:	93.4%				

Impact Location: Center Turf/Seam Pad

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	Specified	Refe	erence Temper	ature -4°C, (25	5°F)	Refere	nce Temperati	are 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°l	F)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	9				0.00	122	802	24.3	9.18				0.00
2	9				0.00	131	869	24.2	9.10				0.00
3	9				0.00	142	929	24.2	9.10				0.00
Avei	age	0.0	0.0			136.5	899.0			0.0	0.0		
Measured Surfa	ce Temperature	°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from -3°C, (-5°F	
Sample C	ondition:		DRY				D	RY				RY	
Perce	entage (%) of ma	ximum allow	able values (g	-max and HI	C):	G-Max:	68.3%	HIC:	89.9%				

Impact Location: Center Turf/Intersection Pad

										• • • • • • • • • • • • • • • • • • • •	•		
	Specified	Refe	erence Temper	ature -4°C, (2:	5°F)	Refere	nce Temperat	ure 23°C, (73°	°F)	Reference	e Temperature	e 49°C, (120°l	F)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	9				0.00	117	779	24.2	9.10				0.00
2	9				0.00	126	846	24.2	9.10				0.00
3	9				0.00	147	963	24.2	9.10				0.00
Avei	age	0.0	0.0			136.5	904.5			0.0	0.0		
Measured Surface	ce Temperature	°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from : -3°C, (-5°F	
Sample C	ondition:		DRY					RY				RY	
Perce	entage (%) of ma	ximum allow	able values (g	-max and HI	C):	G-Max:	68.3%	HIC:	90.5%				



Participant: Polyloom dba Tencate Grass

Project No.: 72186757-1b

 $\label{eq:manufacturing Location ID: Dayton, TN} \ \, \text{Manufacturing Location ID: Dayton, TN}$

Test Date: 2/7/2023

Impact Location: Seam Turf/Center Pad

	Specified	Refe	erence Temper	ature -4°C, (25	5°F)	Refere	nce Temperat	ure 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°I	F)
Drop	Impact Height (Ft.)	G-Max	НІС	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	9				0.00	118	832	24.1	9.03				0.00
2	9				0.00	130	908	24.2	9.10				0.00
3	9				0.00	129	916	24.2	9.10				0.00
Ave	age	0.0	0.0			129.5	912.0			0.0	0.0		
Measured Surfa	ce Temperature	°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from a -3°C, (-5°F	
Sample C	ondition:		DRY				DRY				RY	· ·	
Perce	entage (%) of ma	ximum allow	able values (g	-max and HI	C):	G-Max:	64.8%	HIC:	91.2%				

Impact Location: Seam Turf/Seam Pad

									, • • • • • • •				
	Specified	Refe	erence Temper	ature -4°C, (2	5°F)	Refere	nce Temperati	ure 23°C, (73°	F)	Reference	e Temperature	49°C, (120°I	7)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	9				0.00	121	882	24.2	9.10				0.00
2	9				0.00	125	854	24.2	9.10				0.00
3	9				0.00	134	914	24.2	9.10				0.00
Avei	rage	0.0	0.0			129.5	884.0			0.0	0.0		
Measured Surfa	ce Temperature	°C	May Change from reference ± 5°C			23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from a -3°C, (-5°F	
Sample C	ondition:		DRY				D	RY				RY	
Perce	entage (%) of ma	ximum allow	able values (g	-max and HI	C):	G-Max:	64.8%	HIC:	88.4%				

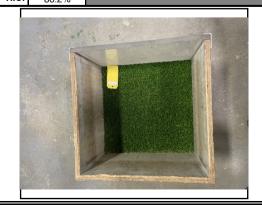
Impact Location: Seam Turf/Intersection Pad

	Specified	Refe	erence Temper	ature -4°C, (2	5°F)	Refere	nce Temperat	ure 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°I	F)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	9				0.00	117	796	24.2	9.10				0.00
2	9				0.00	121	804	24.2	9.10				0.00
3	9				0.00	135	919	24.2	9.10				0.00
Ave	rage	0.0	0.0			128.0	861.5			0.0	0.0		
Measured Surfa	ce Temperature	°C	Max. Cha	Max. Change from reference + 5°C, (5°F)			Max. Cha	nge from refer (±5°F)	rence + 3°C,	°C	Max.	Change from 1 -3°C, (-5°F)	
Sample C	Condition:		DRY			DRY				DRY			
Perc	entage (%) of ma	vimum allow	vable values (o-max and HIC):			G-Max:	64.0%	HIC:	96 29/				











TÜV SÜD America Inc. Product Safety Services 1755 Atlantic Blvd. Auburn Hills, MI 48326

Phone: (616) 546-4600

<u>IPEMA Impact Attenuation Report – ASTM F1292-22</u>

Participant: Polyloom dba Tenca Main Office Address: 1131 Broadway St.	te Grass	TUV Report No.: 72186757-6a Report Date: 2/15/2023
Dayton, TN 37321 Phone: 423.413.7028 Manufacturing Location ID: Dayton, TN		Test Date: 2/15/2023 Selection: ☐ Initial: ☑ Follow up ☐ Ref Job:
Commercial Name of product:Pet Turf (C000075) Date of Manufacture: <u>Unknown</u> No. of samples submitted;See Comments		Sample Receipt Date: 1/27/2023 Ambient Air Temperature: 22.1 °C Humidity: 30 %
Tro. of dampied dabilities a series of the s	Te	st Equipment:
Alpha Automation, Triax, TUV System 5:		Environmental Chamber No.:PLYP00069
Alpha Automation, Triax, TUV System 7:	√	Calibration Due Date: 8/30/2023
Accelerometer ID:	PLYP00226	Environmental Chamber No.: AE-029
Accelerometer Calibration Date:	7/18/2022	Calibration Due Date: 8/30/2023
Loo	se Fill Mat	erial Sample Description:
Engineered Wood Fiber:		Un-compacted Depth:Inches
Loose Fill Wood:		
Rubber Nuggets:		
Rubber Buffings:		
Sand:		Compacted Depth: Inches
Gravel:		
—		
Other:	Unitary	Sample Description:
Tiles		
Tiles:		Total Thickness:
Poured in Place:		Top Layer:
Other:	Ш	Base Layer:
·		m Sample Description:
Turf:	✓	Turf Pile Height: 1.0 Inches
Pad:	\checkmark	Pad Thickness: 1.0 Inches
Aggregate:	✓	Aggregate: 4.0 Inches
Infill:	\checkmark	Infill Amount: 2.0 Lbs./Sq. Ft.
Comments:		Infill Type: envirofill
 Customer submitted: eighteen (18) whole pieces of turf; twenty two (22) seamed pieces of 2, Pet Turf (1.0in. Pile Height) – infilled with 2.0 lbs per sq. ft. of Envirofill infill (grain size #13). Least Favorable Impact Location was Center Turflhersection of Pad. Last Favorable Impact Location report is 72186757-6b 	of turf; fifty five (55) 2/20 mesh) – over 1	1.0 inch center pads, twenty seven (27) 1.0 inch seamed pads, twenty seven (27) 1.0 inch intersection pad, and 150lbs infill. 1.0 inch Tiger Playground Pad – overlaying 4in. of compacted aggregate. Total system depth/thickness 6.0in.
The maximum critical fall height of the above described sample v	was determine	<u>d to be:</u> 5 Ft .
		I samples at the time of testing and at the temperature(s) reported. The results are specificely match the described samples will perform differently. The following data sheet provides
Sample in compliance with ASTM F1292-22 at the temper	ature and ra	ting specified? Yes 🗸 No 🗌
Signature: Patrick Ashley		Title: Project Engineering Technician Date: 2/15/2023
Signature: Patrick Ashley Reviewed by: Timethy Foulia		Title: Project Engineering Technician Date: 2/22/2023

Participant: Polyloom dba Tencate Grass TUV Report No: 72186757-6a

Manufacturing Location ID: Dayton, TN Test Date: 2/15/2023

	Critical	Refe	rence Tempe	rature -4°C, (25°F)	Refe	erence Tempe	rature 23°C, (73°F)	Refe	ence Temper	ature 49°C, (120°F)
Drop	Fall Height (Ft.)	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	153	693	18.1	5.09	141	603	18.0	5.04	128	537	18.0	5.04
2	5	159	718	18.1	5.09	166	766	18.0	5.04	155	723	18.0	5.04
3	5	181	865	18.1	5.09	185	185 893 18.1 5.09		155	729	18.1	5.09	
Avei	rage	170.0	791.5			175.5	175.5 829.5			155.0	726.0		
Measured Surfa	ce Temperature	-4°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	ange from refe (5°F)	erence + 3°C,	49°C	Max.	Change from -3°C, (-5°l	
Sample C	ondition:	Dry			Dry				Dry				

		Refe	erence Tempe	rature -4°C, (25°F)	Refe	erence Temper	rature 23°C, (73°F)	Refe	rence Temper	ature 49°C, (1	120°F)
Drop	One foot over (Ft.)	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	225	1285	19.8	6.09	221	1253	19.7	6.03	217	1285	19.7	6.03
2	6	234	1333	19.8	6.09	237	1369	19.8	6.09	202	1168	19.8	6.09
3	6	238	1359	19.8	6.09	244	1441	19.7	6.03	230	1391	19.8	6.09
Aver	age	236.0	1346.0			240.5	1405.0			216.0	1279.5		
Measured Surfac	ce Temperature	-4°C	-4°C Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	ange from refe (5°F)	erence + 3°C,	49°C	Max.	Change from -3°C, (-5°F	
Sample C	ondition:	Dry				Dry				Dry			

		Refe	erence Tempe	rature -4°C, (25°F)	Refe	rence Tempe	rature 23°C, (73°F)	Refe	rence Temper	ature 49°C, (120°F)
Drop	One foot under (Ft.)	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	4	88	310	16.1	4.03	106	371	16.1	4.03	109	387	16.2	4.08
2	4	105	379	16.1	4.03	118	427	16.2	4.08	137	526	16.2	4.08
3	4	117	430	16.1	4.03	137	510	16.2	4.08	145	568	16.2	4.08
Aver	age	111.0	404.5			127.5	127.5 468.5			141.0	547.0		
Measured Surface	sured Surface Temperature -3°C Max. Change from reference + 5°C, (5°F)		erence + 5°C,	23°C	Max. Cha	ange from refe (5°F)	erence + 3°C,	48°C	Max.	Change from -3°C, (-5°l			
Sample C	Sample Condition: Dry				Dry				Dry				





America





TÜV SÜD America Inc.

Product Safety Services 1755 Atlantic Blvd. Auburn Hills, MI 48326

Phone: (616) 546-4600

IPEMA Surfacing Material Report - Least Favorable Impact Location - ASTM F1292-22

Participant: Polyloom dba Tencate Grass Main Office Address: 1131 Broadway St. Dayton, TN 37321 Phone: 423.413.7028 Manufacturing Location ID: Dayton, TN Commercial Name of Product: Pet Turf (C000075) Date of Manufacture: Unknown No. of samples submitted: See Comments	Project No.:72186757-6b Report Date:2/15/2023 Test Date:2/15/2023 Selection: Initial Test: Follow up Test: Ref Job: Sample Receipt Date:1/27/2023 Ambient Air Temperature:22.1°C Humidity:30%
<u>Test Eq</u>	uipment:
Alpha Automation, Triax, TUV System 5: Alpha Automation, Triax, TUV System 7: Accelerometer ID:PLYP00226 Accelerometer Calibration Date:7/18/2022	Environmental Chamber No.:PLYP00069 Calibration Due Date 8/30/2023 Environmental Chamber No.:AE-029 Calibration Due Date 8/30/2023
Unitar <u>y</u> Sample L	ayer Description:
Tiles: Poured in Place: Turf: V Other: Other: Determine Least Favorable Impact Location: The highest percentage at the locations indicated on Pages 2 and 3. Least Favorable Impact Location: Least Favorable Impact Location: Center Turf/Intersection of Pad	Total Thickness: 6.0in. Top Layer: See Comments Base Layer: See Comments (%) of maximum allowable value, based on g-max or HIC, as tested Reference Temperature: 23°C
Comments: 1.) Samples tested in laboratory environment, overlying poured concrete floor. 2.) Calculate the average g-max and HIC scores by averaging results from the second and third impacts. 3.) After Least Favorable Impact Location is determined at 23°C, remaining testing will be completed at tempe 4.) Customer submitted: eighteen (18) whole pieces of turf; twenty two (22) seamed pieces of turf; fifty five (55) and 150lbs infill. 5.) Pet Turf (1.0in Pile Height)—infilled with 2.0 lbs per sq. ft. of Envirofill infill (grain size #12/20 mesh) — over 6.) Determine Critical Fall Height Report is 72186757-6a. The above described sample was tested at	1.0 inch center pads, twenty seven (27) 1.0 inch seamed pads, twenty seven (27), 1.0 inch intersection pad, 1.0 inch Tiger Playground Pad – overlaying 4in. of compacted aggregate. Total system depth/thickness 6.0in.
	es at the time of testing and at the temperature(s) reported. The results are specific hat the described samples will perform differently. The following data sheet provides
Sample in compliance with ASTM F1292-22 at the temperature and rating sp	ecified? Yes ✓ No
Signature: Title: Project	t Engineering Technician Date: 2/15/2023
Reviewed by: Title: Project	t Engineering Technician Date: 2/22/2023

Participant:	Polyloom dba Tencate Grass	Project No.: <u>72186757-6b</u>
Manufacturing Location ID:	Dayton, TN	Test Date: 2/15/2023

Impact Location: Center Turf/Intersection Pad

	Specified	Refe	rence Temper	ature -4°C, (2:	5°F)	Refere	nce Temperati	are 23°C, (73°	F)	Reference	Temperature	49°C, (120°I	7)
Drop	Impact Height (Ft.)	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	153	693	18.1	5.09	141	603	18.0	5.04	128	537	18.0	5.04
2	5	159	718	18.1	5.09	166	766	18.0	5.04	155	723	18.0	5.04
3	5	181	865	18.1	5.09	185	893	18.1	5.09	155	729	18.1	5.09
Aver	age	170.0	791.5			175.5	829.5			155.0	726.0		
Measured Surface	ce Temperature	-4°C	-4°C Max. Change from reference + 5°C, (5°F)			23°C	Max. Cha	nge from refer (±5°F)	ence + 3°C,	49°C	Max. 0	Change from a -3°C, (-5°F	
Sample C	ondition:	DRY			D	RY			D	RY			
Perce	ntage (%) of max	ximum allow:	um allowable values (g-max and HIC):			G-Max: 87.8% HIC: 83.0%			83.0%				

Impact Location: Center Turf/Seam Pad

	Specified	Refe	rence Temper	ature -4°C, (25	5°F)	Refere	nce Temperati	are 23°C, (73°	F)	Reference	e Temperature	49°C, (120°I	F)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	5				0.00	129	554	18.0	5.04				0.00
2	5		0.00			148	681	18.1	5.09				0.00
3	5				0.00	170	818	18.1	5.09				0.00
Aver	age	0.0	0.0			159.0 749.5				0.0	0.0		
Measured Surfac	ce Temperature	re °C Max. Change from reference + 5°C, (5°F)			rence + 5°C,	23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from a -3°C, (-5°F	
Sample C	Sample Condition: DRY					D	RY				RY	,	
Percentage (%) of maximum allowable values (g-max and HIC):				C):	G-Max:	79.5%	HIC:	75.0%					

Impact Location: Center Turf/Center Pad

Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				B 6					
	Specified	Refe	rence Temper	ature -4°C, (2:	5°F)	Refere	nce Temperat	ure 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°I	F)
Drop	Impact Height (Ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	НІС	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	5				0.00	127	541	18.0	5.04				0.00
2	5				0.00	152	725	18.0	5.04				0.00
3	5				0.00	173	844	18.0	5.04				0.00
Ave	rage	0.0	0.0			162.5	784.5			0.0	0.0		
Measured Surfa	ce Temperature	°C Max. Change from reference + 5°C, (5°F)			rence + 5°C,	23°C	Max. Cha	nge from refer (±5°F)	rence + 3°C,	°C	Max.	Change from 1-3°C, (-5°F	
Sample C	Sample Condition: DRY						RY				DRY		
Perce	entage (%) of ma	ximum allow	um allowable values (g-max and HIC):			G-Max:	81.3%	HIC:	78.5%				



Participant: Polyloom dba Tencate Grass

Project No.: 72186757-6b

 $\label{eq:manufacturing Location ID: Dayton, TN} \ \, \text{Manufacturing Location ID: Dayton, TN}$

Test Date: 2/15/2023

Impact Location: Seam Turf/Center Pad

	Specified	Refe	erence Temper	ature -4°C, (25	5°F)	Refere	nce Temperat	ure 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°I	F)
Drop	Impact Height (Ft.)	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				0.00	121	568	18.0	5.04				0.00
2	5				0.00	149	730	18.0	5.04				0.00
3	5				0.00	159	769	18.1	5.09				0.00
Ave	rage	0.0	0.0			154.0	749.5			0.0	0.0		
Measured Surfa	ce Temperature	°C Max. Change from reference + 5°C, (5°F)		23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from a -3°C, (-5°F			
Sample C	e Condition: DRY						RY				RY	· ·	
Perce	entage (%) of ma	ximum allow	um allowable values (g-max and HIC):			G-Max:	77.0%	HIC:	75.0%				

Impact Location: Seam Turf/Seam Pad

	Ì	Refe	rence Temper	ature -4°C (24	5°F)	Refere	nce Temperati	ure 23°C, (73°	E)	Reference	Temperature	49°C, (120°I	3)
Drop	Specified Impact Height (Ft.)	G-Max	HIC 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					0.00	128	585	18.0	5.04				0.00
2					0.00	141	658	18.0	5.04				0.00
3					0.00	160	755	18.0	5.04				0.00
Ave	rage	0.0	0.0			150.5	706.5			0.0	0.0		
Measured Surfa	ce Temperature	°C	°C Max. Change from reference + 5°C, (5°F)		23°C	Max. Cha	nge from refer (±5°F)	rence <u>+</u> 3°C,	°C	Max.	Change from a -3°C, (-5°F		
Sample C	Condition:	on: DRY					D	RY				RY	
Perce	entage (%) of ma	ximum allow	mum allowable values (g-max and HIC):			G-Max:	75.3%	HIC:	70.7%				

Impact Location: Seam Turf/Intersection Pad

	Specified	Refe	rence Temper	ature -4°C, (25	5°F)	Refere	nce Temperati	ure 23°C, (73°	F)	Reference	e Temperature	e 49°C, (120°F	F)
Drop	Impact Height (Ft.)	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					0.00	127	578	18.0	5.04				0.00
2					0.00	155	734	18.0	5.04				0.00
3					0.00	160	762	18.1	5.09				0.00
Ave	age	0.0	0.0			157.5	748.0			0.0	0.0		
Measured Surfa	ce Temperature	°C Max. Change from reference + 5°C, (5°F)		23°C	Max. Cha	nge from refer (±5°F)	rence + 3°C,	°C	Max.	Change from 1 -3°C, (-5°F)			
Sample C	ondition:	DRY				DRY			DRY				
Parce	ntage (%) of ma	vimum allow	mum allowable values (a-may and HIC):				70.00/	HIC:	74.00/				





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