

**TÜV SÜD America Inc.****Product Safety Services**

1755 Atlantic Blvd.

Auburn Hills, MI 48326

Phone: (616) 546-4600

IPEMA Impact Attenuation Report – 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

TUV Report No.: 72186757-1a
Report Date: 2/8/2023
Test Date: 2/8/2023
Selection: ☐ Initial: ☒
Follow up: ☐ Ref Job:
Sample Receipt Date: 1/27/2023
Ambient Air Temperature: 23.4 °C
Humidity: 25 %

Test 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

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: ☐**Unitary Sample Description:**Tiles: ☐**Total Thickness:**Poured in Place: ☐

Top Layer: _____

Other: ☐

Base Layer: _____

Turf System Sample Description:Turf: ☒

Turf Pile Height: 1.0 _____ Inches

Pad: ☒

Pad Thickness: 2.0 _____ Inches

Aggregate: ☒

Aggregate: 4.0 _____ Inches

Infill: ☒

Infill Amount: 2.0 _____ Lbs./Sq. Ft.

Infill Type: Envirofill

Comments:

- 1.) Customer submitted: eighteen (18) whole pieces of turf; twenty two (22) seamed pieces of turf; fifty five (55) 2.0 inch center pads, twenty seven (27) 2.0 inch seamed pads, twenty seven (27) 2.0 inch intersection pad, and 150lbs infill.
2.) Pet Turf (1.0 inch Pile Height)– infilled with 2.0 lbs per sq. ft. of Envirofill infill (grain size #12/20 mesh) – over 2.0 inch Tiger Playground Pad – overlaying 4in. inches of compacted aggregate. Total system depth/thickness of 7.0in.
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 determined to be: 9 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 F1292-22 at the temperature and rating specified?Yes ☒No ☐Signature: Tim LocksteinTitle: Project Safety TechnicianDate: 2/8/2023Reviewed by: Timothy FouliaTitle: Project Safety TechnicianDate: 2/21/2023

Participant: Polyloom dba Tencate GrassTUV Report No: 72186757-1aManufacturing Location ID: Dayton, TNTest Date: 2/8/2023

Drop	Critical Fall Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		134.5	931.0			135.5	934.0			138.5	901.5		
Measured Surface Temperature		-4°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 -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		147.5	1114.5			149.0	1095.0			187.5	1371.5		
Measured Surface Temperature		-4°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 under (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		119.5	759.0			126.0	788.5			144.5	879.5		
Measured Surface Temperature		-4°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			



**TUV SUD 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.: 72186757-1b

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%

Test Equipment: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

Unitary Sample Layer Description:Tiles: ☐

Total Thickness: 7.0in.

Poured in Place: ☐

Top Layer: See Comments

Turf: ☒

Base Layer: See Comments

Other: ☐

Determine Least Favorable Impact Location: The highest percentage (%) of maximum allowable value, based on g-max or HIC, as tested at the locations indicated on Pages 2 and 3.

**Least Favorable Impact
Location was determined at:**

Impact Location:

Center Turf/Center Pad

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 temperatures 49°C and -6°C at that location.
- 4.) Customer submitted: eighteen (18) whole pieces of turf; twenty two (22) seamed pieces of turf; fifty five (55) 2.0 inch center pads, twenty seven (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 #12/20 mesh) – over 2.0 inch Tiger Playground Pad – overlaying 4in. of compacted aggregate.
- 6.) Determine Critical Fall Height Report 72186757-1a.

The above described sample was tested at : 9 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 F1292-22 at the temperature and rating specified?

Yes



No

Signature: Tim LocksteinTitle: Project Engineering TechnicianDate: 2/8/2023Reviewed by: Timothy FranklinTitle: Project Safety TechnicianDate: 2/21/2023

Participant: Polyloom dba Tencate GrassProject No.: 72186757-1bManufacturing Location ID: Dayton, TNTest Date: 2/7/2023**Impact Location: Center Turf/Center Pad**

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		134.5	931.0			135.5	934.0			138.5	901.5		
Measured Surface Temperature		-4°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			
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	67.8%	HIC:	93.4%				

Impact Location: Center Turf/Seam Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		0.0	0.0			136.5	899.0			0.0	0.0		
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference + 3°C, (±5°F)			°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		DRY				DRY				DRY			
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	68.3%	HIC:	89.9%				

Impact Location: Center Turf/Intersection Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		0.0	0.0			136.5	904.5			0.0	0.0		
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference + 3°C, (±5°F)			°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		DRY				DRY				DRY			
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	68.3%	HIC:	90.5%				



America

Participant: Polyloom dba Tencate GrassProject No.: 72186757-1bManufacturing Location ID: Dayton, TNTest Date: 2/7/2023**Impact Location: Seam Turf/Center Pad**

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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	
Average		0.0	0.0			129.5	912.0			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	64.8%	HIC:	91.2%					

Impact Location: Seam Turf/Seam Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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	
Average		0.0	0.0			129.5	884.0			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	64.8%	HIC:	88.4%					

Impact Location: Seam Turf/Intersection Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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	
Average		0.0	0.0			128.0	861.5			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	64.0%	HIC:	86.2%					



Participant: Polyloom dba Tencate GrassTUV Report No: 72186757-6aManufacturing Location ID: Dayton, TNTest Date: 2/15/2023

Drop	Critical Fall Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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	
Average		170.0	791.5			175.5	829.5			155.0	726.0			
Measured Surface Temperature		-4°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference <u>±</u> 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 -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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	
Average		236.0	1346.0			240.5	1405.0			216.0	1279.5			
Measured Surface Temperature		-4°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference <u>+3</u> °C, (5°F)				49°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		Dry				Dry				Dry				

Drop	One foot under (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		111.0	404.5			127.5	468.5			141.0	547.0		
Measured Surface Temperature		-3°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference <u>±</u> 3°C, (5°F)			48°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		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

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%

Test Equipment: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

Unitary Sample Layer Description:Tiles: ☐

Total Thickness: 6.0in.

Poured in Place: ☐

Top Layer: See Comments

Turf: ☒

Base Layer: See Comments

Other: ☐

Determine Least Favorable Impact Location: The highest percentage (%) of maximum allowable value, based on g-max or HIC, as tested at the locations indicated on Pages 2 and 3.

**Least Favorable Impact
Location was determined at:**

Impact Location:Center Turf/Intersection
of Pad**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 temperatures 49°C and -6°C at that location.
- 4.) Customer submitted: eighteen (18) whole pieces of turf; twenty two (22) seamed pieces of turf; fifty five (55) 1.0 inch center pads, twenty seven (27) 1.0 inch seamed pads, twenty seven (27), 1.0 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 #12/20 mesh) – over 1.0 inch Tiger Playground Pad – overlaying 4in. of compacted aggregate. Total system depth/thickness 6.0in.
- 6.) Determine Critical Fall Height Report is 72186757-6a.

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.

Sample in compliance with ASTM F1292-22 at the temperature and rating specified?**Yes****No**Signature: Patrick AshleyTitle: Project Engineering TechnicianDate: 2/15/2023Reviewed by: Timothy FranklinTitle: Project Engineering TechnicianDate: 2/22/2023

Participant: Polyloom dba Tencate GrassProject No.: 72186757-6bManufacturing Location ID: Dayton, TNTest Date: 2/15/2023**Impact Location: Center Turf/Intersection Pad**

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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	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
Average		170.0	791.5			175.5	829.5			155.0	726.0		
Measured Surface Temperature		-4°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			
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	87.8%	HIC:	83.0%				

Impact Location: Center Turf/Seam Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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				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	
Average		0.0	0.0			159.0	749.5			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	79.5%	HIC:	75.0%					

Impact Location: Center Turf/Center Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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				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	
Average		0.0	0.0			162.5	784.5			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	81.3%	HIC:	78.5%					



Participant: Polyloom dba Tencate GrassProject No.: 72186757-6bManufacturing Location ID: Dayton, TNTest Date: 2/15/2023**Impact Location: Seam Turf/Center Pad**

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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				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	
Average		0.0	0.0			154.0	749.5			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	77.0%	HIC:	75.0%					

Impact Location: Seam Turf/Seam Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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					0.00	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	
Average		0.0	0.0			150.5	706.5			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	75.3%	HIC:	70.7%					

Impact Location: Seam Turf/Intersection Pad

Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°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					0.00	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	
Average		0.0	0.0			157.5	748.0			0.0	0.0			
Measured Surface Temperature		°C	Max. Change from reference + 5°C, (5°F)				23°C	Max. Change from reference + 3°C, (±5°F)				°C	Max. Change from reference -3°C, (-5°F)	
Sample Condition:		DRY				DRY				DRY				
Percentage (%) of maximum allowable values (g-max and HIC):						G-Max:	78.8%	HIC:	74.8%					

