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: Diamond Pro (C000068-69)
Date of Manufacture: Unknown
No. of samples submitted: See Comments

TUV Report No.: 72186757-2a
Report Date: 2/07/2023
Test Date: 2/07/2023
Selection: ☐ Initial: ☑
Follow up ☐ Ref Job:
Sample Receipt Date: 1/27/2023
Ambient Air Temperature: 25.1 °C
Humidity: 24 %

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

Loose Fill Material Sample Description:

Engineered Wood Fiber: ☐
Loose Fill Wood: ☐
Rubber Nuggets: ☐
Rubber Buffings: ☐
Sand: ☐
Gravel: ☐
Other: ☐

Un-compacted Depth: _____ Inches

Compacted Depth: _____ Inches

Unitary Sample Description:

Tiles: ☐
Poured in Place: ☐
Other: ☐

Total Thickness:
Top Layer:
Base Layer:

Turf System Sample Description:

Turf: ☑
Pad: ☑
Aggregate: ☑
Infill: ☑

Turf Pile Height: 1.9375 Inches
Pad Thickness: 2.0 Inches
Aggregate: 4.0 Inches
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.) Diamond Pro (1.9375in. 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. Total system depth/thickness of 7.9375in.
3.) Least Favorable Impact Location was Center Turf/Intersection Pad.
4.) Last Favorable Impact Location report is 72186757-2b

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 Lockstein Title: Project Engineering Technician Date: 2/07/2023

Reviewed by: Timothy Fowlkes Title: Project Engineering Technician Date: 2/22/2023

Participant: Polyloom dba Tencate Grass

TUV Report No: 72186757-2a

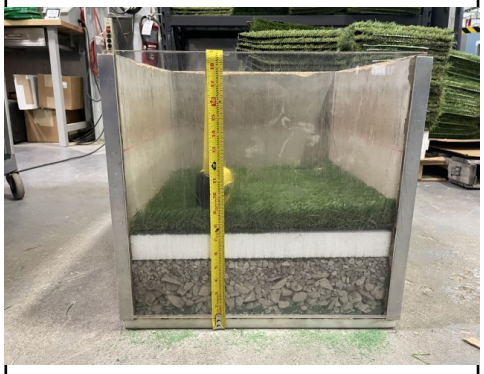
Manufacturing Location ID: Dayton, TN

Test Date: 2/07/2023

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	126	957	24.2	9.10	124	811	24.3	9.18	133	809	24.2	9.10
2	9	126	899	24.3	9.18	140	950	24.3	9.18	148	981	24.3	9.18
3	9	127	903	24.3	9.18	151	1024	24.3	9.18	160	1016	24.3	9.18
Average		126.5	901.0			145.5	987.0			154.0	998.5		
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	129	930	25.6	10.19	128	922	25.5	10.11	139	926	25.6	10.19
2	10	136	997	25.6	10.19	133	945	25.5	10.11	180	1272	25.6	10.19
3	10	136	1006	25.5	10.11	144	999	25.5	10.11	179	1310	25.6	10.19
Average		136.0	1001.5			138.5	972.0			179.5	1291.0		
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			

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	113	715	22.9	8.15	114	678	22.8	8.08	106	614	22.9	8.15
2	8	122	773	22.9	8.15	113	647	22.9	8.15	117	694	22.9	8.15
3	8	119	774	22.9	8.15	124	744	22.9	8.15	129	783	22.9	8.15
Average		120.5	773.5			118.5	695.5			123.0	738.5		
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			



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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: Diamond Pro (C000068-69)
Date of Manufacture: unknown
No. of samples submitted: See Comments

Project No.: 72186757-2b
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: 24.4**°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: ☐
Poured in Place: ☐
Turf: ☑
Other: ☐

Total Thickness: 7.9375in.
Top Layer: See Comments
Base Layer: See Comments

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.

	Impact Location:	**Reference Temperature:**
Least Favorable Impact Location was determined at:	Center Turf/Intersection Pad	**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 seamed pads, twenty seven (27) 2.0 inch intersection pad, and 150lbs infill.
5.) Diamond Pro (1.9375in. 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 is 72186757-2a.

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 Lockstein Title: Project Engineering Technician Date: 2/07/2023

Reviewed by: Timothy Franklin Title: Project Engineering Technician Date: 2/22/2023

Participant: Polyloom dba Tencate Grass

Project No.: 72186757-2b

Manufacturing Location ID: Dayton, TN

Test 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				0.00	132	897	24.3	9.18				0.00
2	9				0.00	133	884	24.3	9.18				0.00
3	9				0.00	146	989	24.3	9.18				0.00
Average		0.0	0.0			139.5	936.5			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:**	69.8%	**HIC:**	93.7%				

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	119	834	24.3	9.18				0.00
2	9				0.00	137	945	24.3	9.18				0.00
3	9				0.00	141	991	24.3	9.18				0.00
Average		0.0	0.0			139.0	968.0			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:**	69.5%	**HIC:**	96.8%				

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	126	957	24.2	9.10	124	811	24.3	9.18	133	809	24.2	9.10
2	9	126	899	24.3	9.18	140	950	24.3	9.18	148	981	24.3	9.18
3	9	127	903	24.3	9.18	151	1024	24.3	9.18	160	1016	24.3	9.18
Average		126.5	901.0			145.5	987.0			154.0	998.5		
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:**	72.8%	**HIC:**	98.7%				

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Participant: Polyloom dba Tencate Grass

Project No.: 72186757-2b

Manufacturing Location ID: Dayton, TN

Test Date: 2/7/2023

Impact Location: Seam Turf/Center Pad

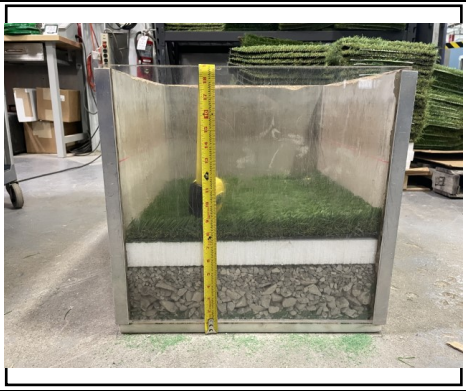
Drop	Specified Impact Height (Ft.)	Reference Temperature -4°C, (25°F)				Reference Temperature 23°C, (73°F)				Reference Temperature 49°C, (120°F)			
		G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	9				0.00	120	871	24.2	9.10				0.00
2	9				0.00	130	917	24.3	9.18				0.00
3	9				0.00	136	978	24.3	9.18				0.00
Average		0.0	0.0			133.0	947.5			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:**	66.5%	**HIC:**	94.8%				

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	125	907	24.3	9.18				0.00
2	9				0.00	142	1032	24.3	9.18				0.00
3	9				0.00	128	920	24.3	9.18				0.00
Average		0.0	0.0			135.0	976.0			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:**	67.5%	**HIC:**	97.6%				

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	113	780	24.2	9.10				0.00
2	9				0.00	123	847	24.3	9.18				0.00
3	9				0.00	127	880	24.2	9.10				0.00
Average		0.0	0.0			125.0	863.5			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:**	62.5%	**HIC:**	86.4%				



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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: Diamond Pro (C000068-69)
Date of Manufacture: Unknown
No. of samples submitted: See Comments

TUV Report No.: 72186757-7a
Report Date: 2/16/2023
Test Date: 2/16/2023
Selection: ☐ Initial: ☑
Follow up ☐ Ref Job:
Sample Receipt Date: 1/27/2023
Ambient Air Temperature: 23.3 °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

Loose Fill Material Sample Description:

Engineered Wood Fiber: ☐
Loose Fill Wood: ☐
Rubber Nuggets: ☐
Rubber Buffings: ☐
Sand: ☐
Gravel: ☐
Other: ☐

Un-compacted Depth: _____ Inches

Compacted Depth: _____ Inches

Unitary Sample Description:

Tiles: ☐
Poured in Place: ☐
Other: ☐

Total Thickness:
Top Layer:
Base Layer:

Turf System Sample Description:

Turf: ☑
Pad: ☑
Aggregate: ☑
Infill: ☑

Turf Pile Height: 1.9375 Inches
Pad Thickness: 1.0 Inches
Aggregate: 4.0 Inches
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) 1.0 inch center pads, twenty seven (27) 1.0 inch seamed pads, twenty seven (27) 1.0 inch intersection pad, and 150lbs infill.
2.) Diamond Pro (1.9375in. 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 of 6.9375in.
3.) Least Favorable Impact Location was Center Turf/Center Pad.
4.) Last Favorable Impact Location report is 72186757-7b

The maximum critical fall height of the above described sample was determined to be: 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 Ashley Title: Project Engineering Technician Date: 2/16/2023

Reviewed by: Timothy Fowlkes Title: Project Engineering Technician Date: 2/22/2023

Participant: Polyloom dba Tencate Grass

TUV Report No: 72186757-7a

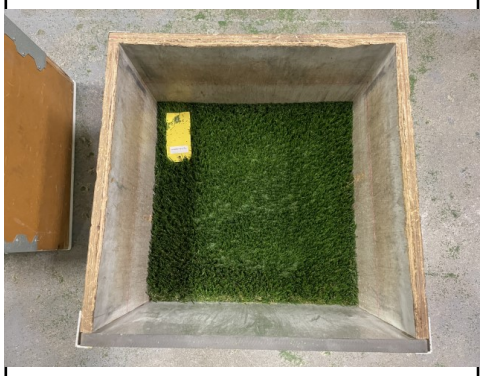
Manufacturing Location ID: Dayton, TN

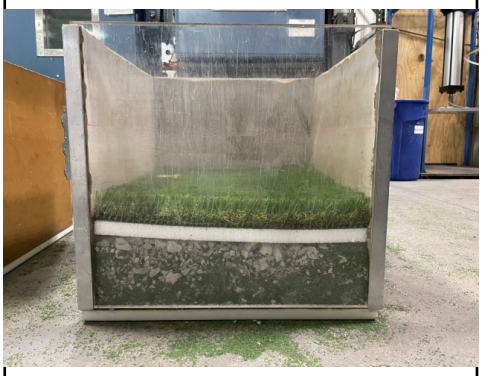
Test Date: 2/16/2023

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	145	686	18.0	5.04	161	763	18.0	5.04	159	750	18.0	5.04
2	5	153	719	18.0	5.04	168	804	18.0	5.04	178	870	18.1	5.09
3	5	160	755	18.0	5.04	169	827	18.1	5.09	180	881	18.1	5.09
Average		156.5	737.0			168.5	815.5			179.0	875.5		
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	6	183	1033	19.7	6.03	209	1190	19.7	6.03	210	1216	19.7	6.03
2	6	210	1188	19.7	6.03	215	1235	19.7	6.03	234	1353	19.8	6.09
3	6	197	1089	19.8	6.09	201	1164	19.7	6.03	235	1375	19.8	6.09
Average		203.5	1138.5			208.0	1199.5			234.5	1364.0		
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			

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	86	303	16.1	4.03	97	349	16.0	3.98	96	321	16.1	4.03
2	4	101	379	16.1	4.03	115	430	16.1	4.03	117	412	16.1	4.03
3	4	108	407	16.1	4.03	129	498	16.1	4.03	129	482	16.1	4.03
Average		104.5	393.0			122.0	464.0			123.0	447.0		
Measured Surface Temperature		-3°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference ± 3°C, (5°F)			48°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		Dry				Dry				Dry			





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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: Diamond Pro (C000068-69)
Date of Manufacture: Unknown
No. of samples submitted: See Comments

Project No.: 72186757-7b
Report Date: 2/16/2023
Test Date: 2/16/2023
Selection: ☐ Initial Test: ☑
Follow up Test: ☐ **Ref Job:**
Sample Receipt Date: 1/27/2023
Ambient Air Temperature: 23.3**°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: ☐
Poured in Place: ☐
Turf: ☑
Other: ☐

Total Thickness: 6.9375in.
Top Layer: See Comments
Base Layer: See Comments

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.

	Impact Location:	**Reference Temperature:**
Least Favorable Impact Location was determined at:	Center Turf/Center Pad	**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.) Diamond Pro (1.9375in. 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.
6.) Determine Critical Fall Height report is 72186757-7a.

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 Ashley Title: Project Engineering Technician Date: 2/16/2023

Reviewed by: Timothy Fowlkes Title: Project Engineering Technician Date: 2/22/2023

Participant: Polyloom dba Tencate Grass

Project No.: 72186757-7b

Manufacturing Location ID: Dayton, TN

Test Date: 2/16/2023

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	5	145	686	18.0	5.04	161	763	18.0	5.04	159	750	18.0	5.04
2	5	153	719	18.0	5.04	168	804	18.0	5.04	178	870	18.1	5.09
3	5	160	755	18.0	5.04	169	827	18.1	5.09	180	881	18.1	5.09
Average		156.5	737.0			168.5	815.5			179.0	875.5		
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:**	84.3%	**HIC:**	81.6%				

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	119	516	18.0	5.04				0.00
2	5				0.00	144	637	18.0	5.04				0.00
3	5				0.00	160	747	18.1	5.09				0.00
Average		0.0	0.0			152.0	692.0			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:**	76.0%	**HIC:**	69.2%				

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				0.00	117	503	18.0	5.04				0.00
2	5				0.00	138	607	18.0	5.04				0.00
3	5				0.00	158	714	18.1	5.09				0.00
Average		0.0	0.0			148.0	660.5			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:**	74.0%	**HIC:**	66.1%				

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Participant: Polyloom dba Tencate Grass

Project No.: 72186757-7b

Manufacturing Location ID: Dayton, TN

Test Date: 2/16/2023

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	113	524	18.0	5.04				0.00
2	5				0.00	141	675	18.0	5.04				0.00
3	5				0.00	135	658	18.0	5.04				0.00
Average		0.0	0.0			138.0	666.5			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:**	69.0%	**HIC:**	66.7%				

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	122	603	18.0	5.04				0.00
2					0.00	148	714	18.0	5.04				0.00
3					0.00	152	736	18.0	5.04				0.00
Average		0.0	0.0			150.0	725.0			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:**	75.0%	**HIC:**	72.5%				

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	118	520	18.0	5.04				0.00
2					0.00	140	644	18.0	5.04				0.00
3					0.00	157	763	18.1	5.09				0.00
Average		0.0	0.0			148.5	703.5			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:**	74.3%	**HIC:**	70.4%