



TESTING TECHNOLOGY FOR SPORT

Laboratory Analysis Report

2” Blended Product with 4 lbs. Sand & 2.5 lbs. SBR over TTII PRO-TURF PAD

Report Number: 95434 / 6012

Report Status: Final

Client: Urethane Sciences

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Report Number	95434-6012	Report Date	02/28/2024
Sample Type	TTII PRO-TURF PAD	Test Date	02/26/2024
Material Description	2" Blended Product with 4 lbs. Sand & 2.5 lbs. SBR over TTII PRO-TURF PAD		
Prepared by	Gustavo Munoz		
Checked by	Kieran O'Donnell		

Introduction:

Artificial Turf samples submitted by the manufacturer for testing and analyzed in accordance with the test methods listed below.

Test Methods:

- **AAA - ASTM F3189-17:** Standard Test Method for Measuring Force Reduction, Vertical Deformation, and Energy Restitution of Synthetic Turf Systems Using the Advanced Artificial Athlete
- **ASTM F355-16:** Standard Test Method for Impact Attenuation of Playing Surface Systems, Other Protective Sport Systems, and Materials Used for Athletics, Recreation and Play
- **ASTM F3146:** Determination of Critical Fall Height

Foreword

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Gmax Results

Pre-Lisport Results			
Location	Gmax	Impact Velocity (m/s)	Average Drop 2&3
1	93	3.5	101
	99	3.5	
	102	3.5	
2	91	3.5	99
	98	3.5	
	99	3.5	
3	87	3.5	96
	93	3.5	
	98	3.5	
Overall Average			98

Post-Lisport Results			
Location	Gmax	Impact Velocity (m/s)	Average Drop 2&3
1	99	3.5	107
	106	3.5	
	107	3.5	
2	96	3.5	102
	101	3.5	
	102	3.5	
3	100	3.5	106
	105	3.5	
	107	3.5	
Overall Average			105

AAA Test Results

Pre-Lisport Results			
	Force Reduction (%)	Vertical Deformation (mm)	Energy Restitution (%)
	69	9.7	37
	69	9.2	37
	69	9.5	38
Average	69	9.5	37

Post-Lisport Results			
	Force Reduction (%)	Vertical Deformation (mm)	Energy Restitution (%)
	69	9.5	37
	68	9.7	39
	68	9.6	40
Average	68	9.6	39

HIC Results

Pre-Lisport Results			
Location	Drop (m)	Offset	HIC
1	1.320	168	878
	1.320	179	977
	1.320	182	983
2	1.170	149	699
	1.170	158	751
	1.170	159	770
3	1.470	193	1139
	1.470	196	1143
	1.470	197	1169
4	1.620	205	1274
	1.620	223	1431
	1.620	226	1461
HIC Result (m)			1.33

Post-Lisport Results			
Location	Drop (m)	Offset	HIC
1	1.280	148	960
	1.280	185	974
	1.280	186	957
2	1.130	167	790
	1.130	168	794
	1.130	179	857
3	1.430	193	1085
	1.430	198	1135
	1.430	211	1124
4	1.580	221	1397
	1.580	237	1532
	1.580	248	1397
HIC Result (m)			1.29

Photos

Pre-Wear



Post-Wear



END REPORT