LABORATORY TESTING PERFORMANCE EVALUATION

Project Information

Project Name	2" Dual Fiber_ TTII Nature's Infill 10-20 & Sand_PP20 Performance Evaluation			
Client Information	Schmitz Foam Products LLC 188 Treat Avenue Coldwater, MI 49036	Target Technologies 8535 Eastlake Drive Burnaby, BC V5A 4T7	**Test Date**	5/17/2023
Report Date	5/19/2023		**Sample Received Date**	5/10/2023
Report Status	Final		**Job No.**	98377/8575
Prepared by	*Megan Illsley* *Laboratory Director*		Megan Illsley	
Checked by	*Jeffrey Gentile* *Director of Operations*			

Notes:

1. This report has been prepared by Firefly Sports Testing with all reasonable skill, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
2. This report is confidential to the Client and Firefly Sports Testing accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.
3. This report shall not be used for engineering or contractual purposes unless signed by the Author and the Checker and unless the report status is "Final."
4. Complete drop data and individual test results are available upon request.

Summary

Firefly Sports Testing was commissioned to perform laboratory testing for the following characteristics listed below.

Test Type	Test Method	Test Description
HIC	**ASTM F3146-18**	Standard Test Method for Impact Attenuation of Turf Playing Systems Designed for Rugby
AAA	**ASTM F3189-20**	Standard Test Method for Measuring Force Reduction, Vertical Deformation, and Energy Restitution of Synthetic Turf Systems Using the Advanced Artificial Athlete
g-max	**ASTM F355A-16**	Standard Test Method for Impact Attenuation of Playing Surface Systems, and Materials Used for Athletics, Recreation and Play

Complete results and background information can be found in the subsequent sections of this report.

Table Contents

General Information

System Name	2" Dual Fiber_TTII Nature's Infill 10-20 & Sand_PP20		
Carpet	2" Dual Fiber	**Infill Depth (mm)**	38
Performance Infill	1.5 lb/sf TTII Nature's Infill 10-20		
Stabilizing Infill	5 lb/sf Sand	**Shockpad**	PP20
Air Temperature (°F)	70	**Sub-Base**	Concrete
Surface Temperature (°F)	72	**Humidity (%)**	47

Results Tables

Set	Drop Height (m)	Drop 1 HIC	Drop 2 HIC	Drop 3 HIC	Max HIC	Critical Fall Height (m)
1	1.005	575	551	529	575	1.30
2	1.202	823	753	714	823	
3	1.101	1044	994	1021	1044	
4	1.607	1202	1236	1282	1282	

Force Reduction (%)	Vertical Deformation (mm)	Energy Restitution (%)	g-max (g's)
60	8.0	37	112

End of Report