TEST REPORT

Laboratory evaluation of an infill material for artificial turf system

Tests performed according to EN 15306 and EN 12235 standards

Report Number	**R19442CAN-B1**
Product	**TTII Playsafe 65 Color Coated EPDM** Target Technologies International Inc.
Client	**John B. Giraud** Target Technologies International Inc., 8535 Eastlake Drive, Burnaby, BC V5A 4T7
Date	**May 05th, 2020**

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INFORMATION

Product description	**Synthetic Turf System filled with Silica Sand and Color Coated EPDM**			
Name	**Generic Turf 1.75"**	**TTII Playsafe 65 Color Coated EPDM**	**Silica Sand**	
Sample Number	**US00365**	**US00371**	**US00304**	
Date of reception	**April 14th 2020**			
Date of the tests	**April 2020**			
Temperature	**Min**	**73°F** *(23°C)*	**Max**	**75°F** *(24°C)*
Humidity	**Min**	**48 %RH**	**Max**	**50 %RH**
Configuration tested				
Name of the turf	**Generic turf** *(monofilament/fibrillated)*			
Pile length	**1.75''** *(45 mm)*			
Sand quantity	**1.8 lb/ft²** *(8.5 kg/m²)*			
Infill quantity	**2.5 lb/ft²** *(12.5 kg/m²)*			
Infill depth measured	**1.2''** *(30 mm)*			

US00365 sample – Generic turf

US00371 sample – Playsafe 65 EPDM

US00304 sample – Silica Sand

System general view

RESULTS

Simulated wear – Lisport 20,000 cycles – Pictures:

Exposure	General view	Close-up
0 cycle *(before Lisport wearing)*		
5,000 cycles		
10,000 cycles		
15,000 cycles		
20,000 cycles		

Simulated wear – Lisport 20,000 cycles – Measurements:

EN 15306 Standard Lisport simulated wear was performed including measurements every 2,500 cycles as per:
- Infill depth measurements were taken using 3 prong infill depth gauge following EN 1969 standard
- Infill dispersed out of the sample was weighted and replaced into the system
- Free pile length was measured using a glass prism gauge
- Flattening percentage calculated from total pile length of the turf product
- Wearing levels 1 to 5 determined by Labosport technical team

Exposure	Free pile	Yarn flattening	Tuft Loss	Infill Dispersion		Infill depth	Compaction
0 cycles	15 mm	*n/a*	0 mg	*n/a*	*n/a*	30 mm	0%
2,500 cycles	16 mm	0%	0 mg	252 mg	4%	29 mm	3%
5,000 cycles	17 mm	2%	0 mg	230 mg	3%	27 mm	10%
7,500 cycles	19 mm	2%	0 mg	251 mg	4%	25 mm	17%
10,000 cycles	19 mm	2%	0 mg	220 mg	3%	25 mm	17%
12,500 cycles	20 mm	4%	0 mg	156 mg	2%	23 mm	23%
15,000 cycles	20 mm	7%	0 mg	159 mg	2%	22 mm	27%
17,500 cycles	20 mm	9%	0 mg	151 mg	2%	21 mm	30%
20,000 cycles	20 mm	13%	0 mg	121 mg	2%	19 mm	37%

Levels : 1: none / 2: light / 3: moderate / 4: important / 5: high

Comments:

Yarn flattening and tuft loss results showed **no negative effect of the infill to the turf fibers**. The rotation of the studded rollers caused a **was light to almost null infill dispersion** at the end of the 20k cycles. Angular shaped infill material such as the sample tested here, tend to increase the **compaction to an important level reaching the end of the Lisport testing**. Compaction level over 30% are commonly observed on generic rubber/sand infill turf installation after 8 to 10 years of utilization and a light maintenance progamme. At the end of the 20k cycles of Lisport simulated wear, the infill submitted to the Grey Scale test gave a discoloration index of 4 out of 5 *(5 = no change)* meaning **very light color loss**.

Performance tests

Property	Method	Condition	Results	Recommended range
Vertical ball rebound	**EN 12235**	**New**	**0.63 m**	**0.60 – 0.85 m**
		After 20k cycles of Lisport™	**0.77 m**	

Note: Lisport™ ageing performed according to EN 15306 Standard.

REPORTED BY

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