

# **TEST REPORT**

# Laboratory tests on artificial turf systems

Tests performed according to the standards listed in the quote Q22026 CAN



R22026CAN-A1

Product

TTII PLAY-IT-COOL Target Technologies International

Client

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# Laboratory tests on artificial turf systems



#### **INFORMATION**

Product description	Artificial turf filled with performance infill and/or sand							
Infill Sample number	TTII PLAY-IT-COC CAN004353	DL Generic SBR CAN003472						
Date of reception	February 2022							
Date of the tests	February 2022							
LABORATORY CONDITIONS								
Temperature (°C)	21 - 23	Humidity (%)		48 - 50				
CONFIGURATIONS TESTED								
System number	A		В					
Synthetic turf Infill depth	Synthetic turf + TTII PLAY-IT-COOL- 1 ½" (39 mm)		Synthetic turf + GENERIC SBR – 1 ½" (39 mm)					



CAN004353 – System A overview



CAN003472 – System B overview

#### **PREAMBLE**

The following testing was performed to determine the relative effect infill can have on the surface temperature of a synthetic turf system. Simulating the heat coming from the sun, each sample was exposed to infra-red heat lamps. Only the nature of infill varied between system A and B. The resulting temperatures were observed and recorded.



# **RESULTS**

#### HEAT TEST – FIFA TEST METHOD 14

	Category 1	Category 1 – 2	Category 2	Category 2	2 – 3	Category 3	
Temperature	< 122°F	122 - 129°F	131 - 138°F	140 - 149	€€	> 149°F	
range	< 50°C	50 - 54°C	55 - 59°C	60 - 65°	°C	> 65°C	
Product		Condition	Maximum	Maximum Surface		FIFA	
		Condition	tempei	temperature		Category	
System A (TTII PLAY-IT-COOL)		Dry	132°F (	<b>132°F</b> (56°C)		2	
		Wet	108°F (	<b>108°F</b> (42 <i>°C)</i>		1	
System B (SBR)		Dry	140°F (	140°F (60°C)		2 - 3	
		Wet	124°F (	(51°C)		1 - 2	

DENSITY

Property	Sample	Unit	Result	
Bulk Density -EN 1097-3	CAN004353 (TTII PLAY-IT-COOL)	<b>g.cm<sup>-3</sup></b> (lb.ft <sup>-3</sup> )	<b>1.584</b> (98.89)	

#### **COMMENTS**

When tested dry, System A (TTII PLAY-IT-COOL) displayed a final temperature 4°C lower than system B.

When tested wet, System A (TTII PLAY-IT-COOL) displayed a final temperature 9°C lower than system B.

Therefore, in the conditions presented in introduction, System A (TTII PLAY-IT-COOL) reached lower final temperatures than the system B (with SBR and sand infill).

#### **NOTE ON WETTING PROCEDURE**

Wetting of the sample is based on FIFA Method (FIFA – Handbook of Test Method 2015 – V3.0) for preparing systems: The system is immerged, by applying at least the same volume of water as the volume of the whole system (turf + infill). For such a system, (50cm x 50cm ( $2.7 ft^2$ ) with 39 mm ( $1 \frac{12}{2}$ ) infill depth), the amount of water to be used should be no less than 10 L (22 lb.)

# **REPORTED BY**

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Maxime FAVÉ (Lab Manager) – Writer/Approver



# **ANNEX**

#### HEAT measurement curves (Fahrenheit):





#### HEAT measurement curves (Celsius):

