TEST REPORT

Laboratory evaluation of an athletic floor product

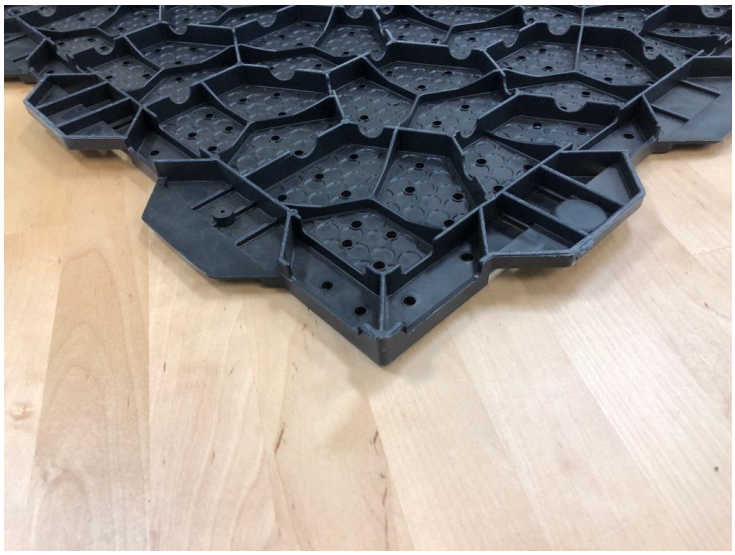
Tests performed according to internal test method

Report Number	**R19005CAN-D1**
Product	**Ultra-Base Champion Panel** Innovative Base Technologies
Client	**Dave Barlow** Innovative Base Technologies, 5030 Seminole Blvd. Saint Petersburg, FL 33708
Date	**January 11th, 2019**

INFORMATION

Product description	**Athletic floor product**			
Product name	**Ultra-Base Champion Panel**			
Thickness	**3/4''** *(19 mm)*			
Manufacturer	**Innovative Base Technologies**			
Sample Number	**CAN003301**			
Date of Reception	**January 11th, 2019**			
Date of Testing	**January 2019**			
Temperature (°C)	**Min**	**22**	**Max**	**24**
Humidity (%)	**Min**	**49**	**Max**	**51**

Sample top view



Sample bottom view

INTRODUCTION

Protocol:

The panel sample was tested for its resistance to compression using a tensile tester machine of 5kN capacity with a 25 mm *(1")* diameter cylindrical indenter. A load of 1882 N was applied using an indenter with a surface area of 0,761 in² in order to reproduce a force of 80 000 psf (lbs/ft²) or 556 psi (lbs/in²) as requested by the client.

After compression, the sample was examined for signs of collapsing, damages or visible permanent indentation. At the presence of damage, indentation amplitude was recorded and photographs were taken.

Calculation:

$$Stress\ (psf\ or\ lbs/ft^2) = \frac{Applied\ load\ (lbs)}{Indenter\ area\ (ft^2)}$$

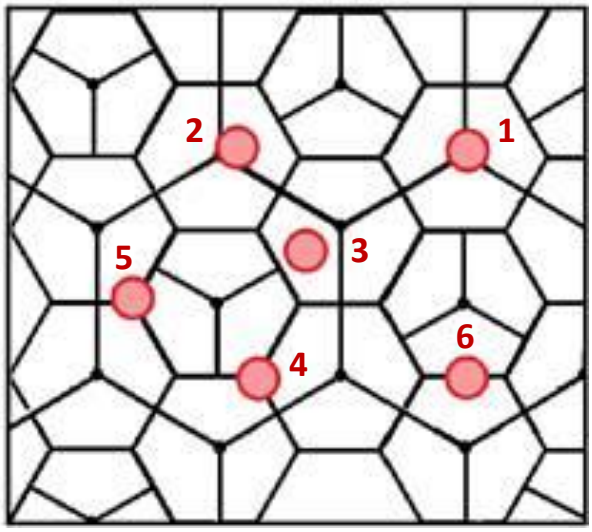
Meaning:

$$Applied\ load\ (lbs) = Stress\ (psf\ or\ lbs/ft^2)\ \times\ Indenter\ area\ (ft^2)$$

Therefore:

$$Applied\ load\ (lbs) = 80\ 000\ (psf) \times\ 0.00529\ (ft^2) = 423\ (lbs)\ which\ equals\ to\ 1882\ (N)$$ in metric system

Tests locations selected:



<---------- 31 cm *(±12 in)* ---------->

Considering the specific design of the panel sample, the load applied through a 25 mm *(1")* diameter cylindrical indenter might be spread differently depending on where it is applied on the panel.

Consequently, 6 locations were selected in order to cover various favourable and unfavourable scenarios:

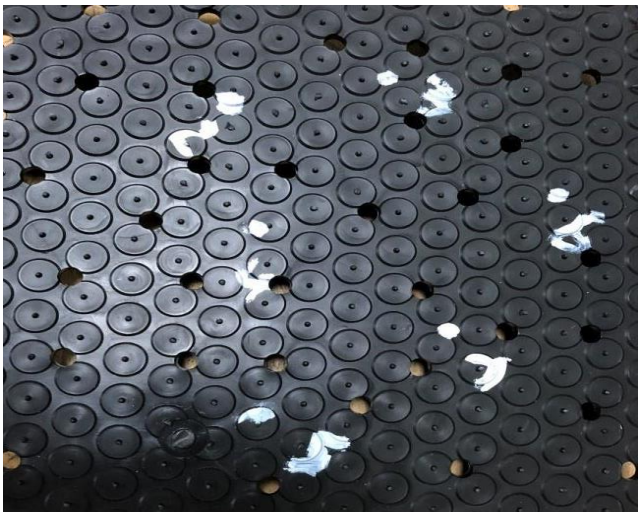
- Theoretical weakest spots: location 2 and 3
- Theoretical strongest spots: location 4 and 5

Note: Opposite figure shows the design of the panel from the bottom view for illustration purposes. The load was applied on the top side of the panel sample.

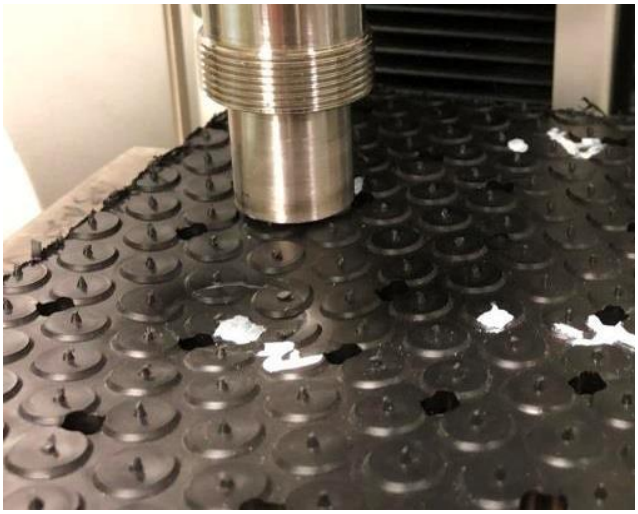
RESULTS

Property	Condition	Method	Test locations					
			1	2	3	4	5	6
Total collapse	Visual	Photograph	No	No	No	No	No	No
Light damages	Visual	Photograph	No	Yes	Yes	No	No	No
Permanent indentation	Visual	Photograph	No	Yes	Yes	No	No	No
	Indentation amplitude	Thickness comparator	-	1 mm *(1/32")*	4 mm *(5/32")*	-	-	-

PICTURES



General view



Sample during test

CONCLUSION

The results obtained showed that the panel sample tested can resist a compression of 80,000 psf without collapsing. The two locations that showed light damages and permanent indentation (location 2 and 3) were the weakest spots offered by the panel design, since they are the largest surface with no support and the indenter is slightly smaller that this space.

REPORTED BY

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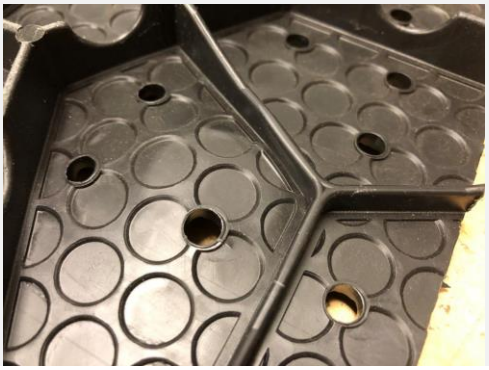
APPENDIX – PICTURES

Location 1	Location 2	Location 3
		
		

Location 4	Location 5	Location 6