



Suitability Test Report

Issued To:
perkEpave LLC
418 Wilson Street
Pottstown, PA 19464
USA

Standard:
F1292 (2018): Standard Specification for Impact Attenuation of Surfacing Materials
Within the Use Zone of Playground Equipment

System Name:
perkEpave – 2 inch

Date of Suitability Testing	Jun 03, 2019
Suggested Retest Date	Jun 03, 2026
Report Number	F1292-060319-01
Pages	5

Evaluated ASTM F2970 (2015) Performance Property	Test Results @ 4 ft Fall (Avg Values)		Test Results @ 5 ft Fall (Avg Values)	
	Gmax	HIC	Gmax	HIC
Point 1	127	595	155	887
Point 2	133	602	158	890
Average	130	599	157	889
Meets a critical fall height of 5 ft using ASTM F1292-18				

Notes:

1 – Key construction details are highlighted in Section 1 (page 3) of this report. Specifications and installation instructions containing these key details have been supplied and reviewed. Necessary tools and methods to achieve proper anchoring have also been addressed in the specification and installation instructions.

2 – This document contains enhanced digital and duplication security features. More information can be found on our website: www.asetervices.com/blog.

3 – This report contains 5 pages, and may not be used for commercial purposes unless it is reproduced in its entirety.

4 – Suggested Retest: Periodic retesting is suggested ASET Services in order to ensure that products continue to conform to the standard. Periodic retesting can involve lab or field testing.

To: perkEpave LLC
418 Wilson Street
Pottstown, PA 19464
USA

Subject: Suitability test carried out on a playground safety surface system according to ASTM F1292 (2018).


ASET Services, Inc was commissioned by perkEpave LLC of PA to conduct suitability testing of the 2 inch landing mats.

A sample of the protective mat system measuring 2 ft x 2 ft was tested at ASET Services' test facility.

The date of the testing was June 3, 2019.

1) System Construction Summary

The sample was constructed using the following materials and construction methods.

<p>A) Shock Attenuating Surface Approx 2 inch (51 mm)</p>	<p>The safety surface uses recycled wire-free passenger tires, a washed kiln dried stone aggregate and a urethane binder.</p>
<p>B) Concrete</p>	
<p>C) Photos</p>	

2) Testing Procedures

Testing was conducted according to ASTM 1292 (2018). The testing climate was 68°F, 45% relative humidity.

The 10.0 lb 'E' missile as defined in ASTM F355 (2015) was used to generate the impact. This is the same missile used for critical fall height to test playground safety surfacing.

The peak deceleration and HIC (Head Injury Criteria) were recorded for each impact.

Testing was performed with the padding placed over a 10 inch thick concrete slab.

3) Average Test Results

The following table contains the average performance values obtained on the evaluated protective mat system.

Evaluated ASTM F2970 (2015) Performance Property	Test Results @ 4 ft Fall (Avg Values)		Test Results @ 5 ft Fall (Avg Values)	
	Point 1	Point 2	Point 1	Point 2
Impact Attenuation (Units = g's)	127	133	155	158
HIC - Head Injury Criteria (Unitless)	595	662	897	892

The 2 inch mat as tested meets a critical fall height of 5 ft using ASTM F1292-18.

4) Conclusions

The 2 inch perEpave Porous Flexible Paving protective system described in previous sections was found to meet the impact attenuation performance requirements as specified in ASTM F1292 (2018).

ASTM F1292 (2018) is a standard for playground surfaces. While this is not a playground surface, the results should provide an accurate measure of the impact forces and energy felt by a child's head during an impact.

Testing and report generation was performed by Paul W. Elliott, Ph.D., P.E. of ASET Services, Inc.

I hereby verify that the results presented in this report were obtained on the sample as described, on said date and are believed to be accurate representations of the performance of this protective mat system.

Paul W Elliott

Date: June 12, 2019

