TEST REPORT

CUSTOMER: Think Turf
257 Coutts Street,
Kilbirnie,
Wellington.

CUSTOMER REFERENCE: Scott Laurence

TEST SPECIFICATION: NZS5828:2004
Playground and Playground Equipment

ITEM TESTED: 40mm shock pad / artificial turf / sand combination.

DATE OF TEST: 31 July 2014

RESULTS: Refer to the body of this report.

The attention of the client is drawn to the Terms and Conditions, which form part of the terms of engagement between SAI Global (NZ) limited and the client.

TESTED BY: KP Uprichard

SIGNATORY: AA Roxburgh

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Imtest Group of Laboratories, part of SAI Global

Introduction

NZS 5828:2004 specifies testing requirements to determine the critical fall height for playground safety surfaces.

The critical fall height for each safety surface is determined by dropping an instrumented test headform, from various heights onto the surface and recording the resulting acceleration-time history of each impact.

The recorded impacts are then analysed to determine the fall height at which the Head Injury Criterion (HIC) of 1000 is obtained.

It should be noted that the results reported herein relate only to the product tested on site under the conditions as stated. No allowance has been made for variations between installations, variations in base materials, product degradation, or variations in climatic conditions.

Test Conditions

Test Location: Laboratory Concrete floor
Material: Assembled on site combination of:
4 x 1m^2 40mm shock pads / artificial turf / sand on turf at 12kg / m^2
Ambient temperature: 20^0 C

Test Results

Test Number	*Drop Height (m)*	*HIC*
1	0.7	259
2	1	482
3	1.3	750
4	1.6	1071

Calculated Critical Fall Height: From the graphical data obtained, the calculated critical fall height for this material combination would be 1.5 m.

Graphical Results
Figure 1, shows how HIC values varied with drop height.

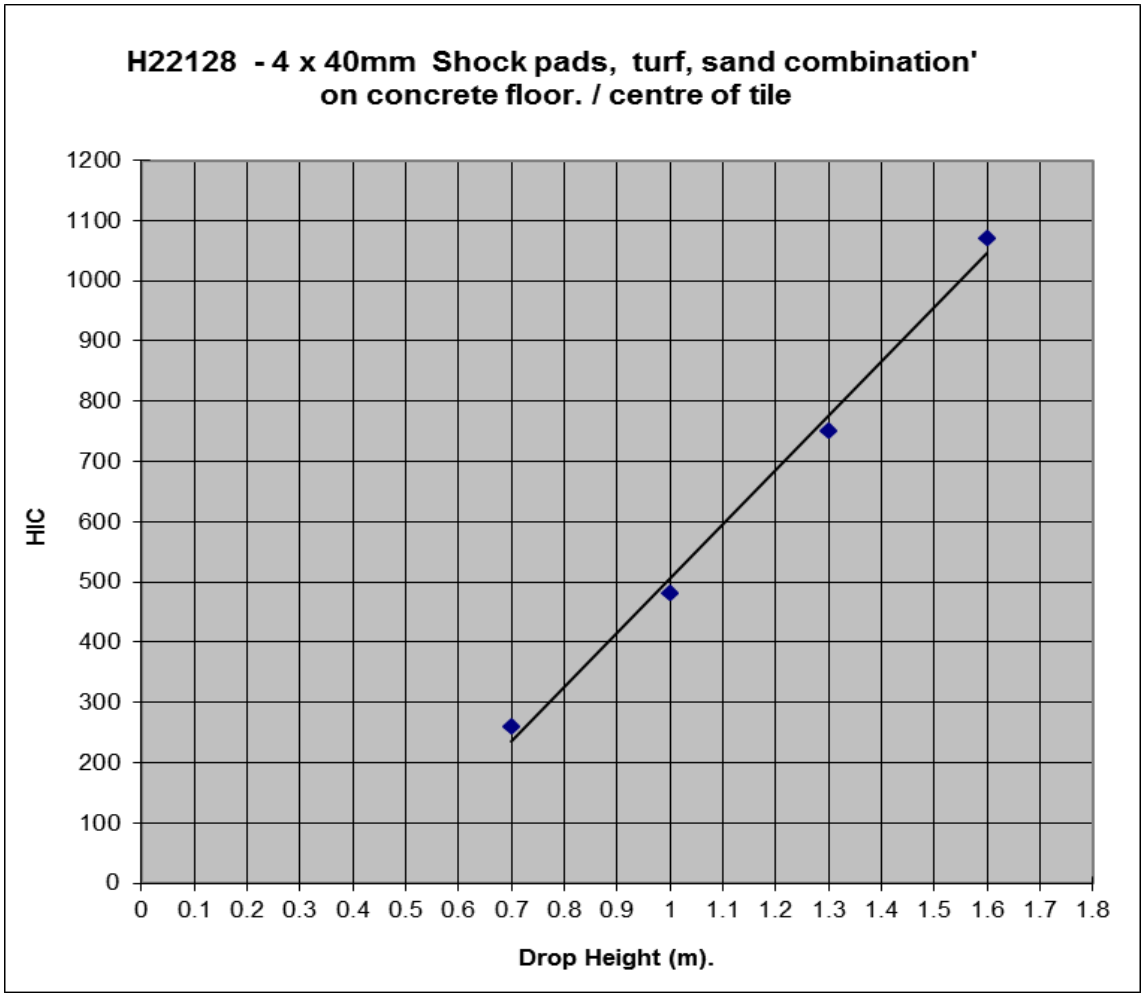

Figure 1.

Graphical Results

Figure 2, shows a time/acceleration curve of one impact.

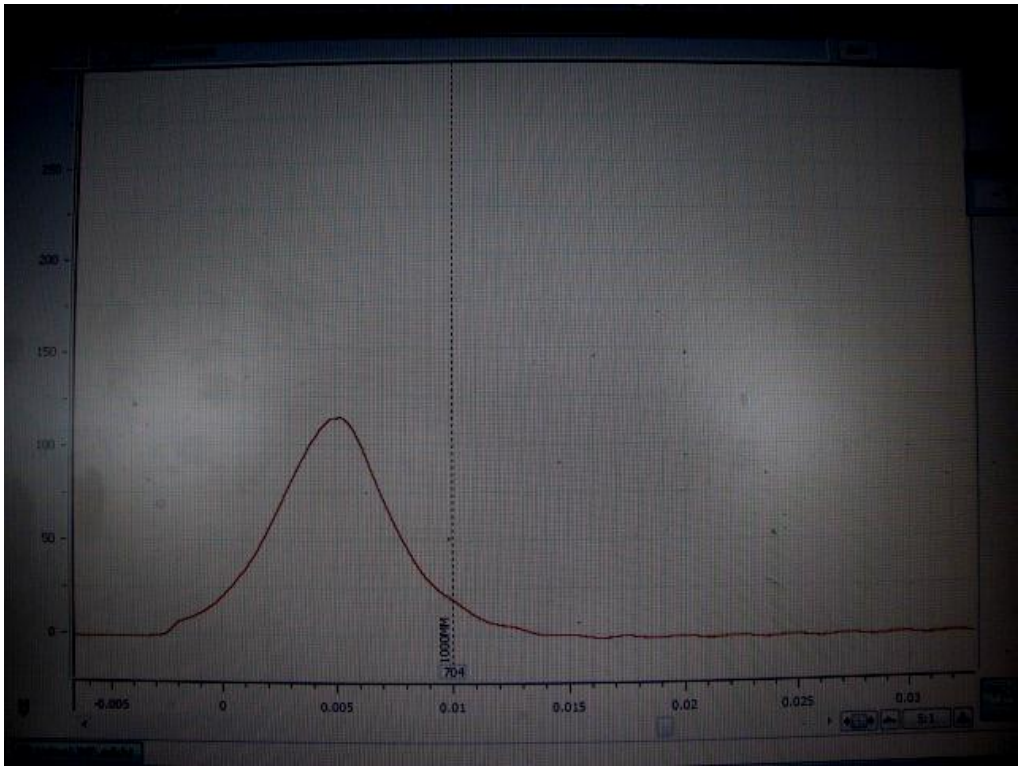

Figure 2.