

TEST REPORT

HIC TEST UNI 1177:2008

Impact attenuating playground surfacing – Determination of critical fall height

N° 89-B

Date 04/04/2018

APPLICANT INFORMATION:

Company: Elastrade s.r.l.

Address: Via dei Termini 20, 24040 Osio Sopra (BG)

Sample arrived on: 04/04/2018

Test date: 04/04/2018

Place of test execution: laboratory

loco Address: N.A.

Geographic coordinates: N.A.

Sampling done by: applicant

SAMPLING IDENTIFICATION

Trade name: Playground System Softlayer 75

Size [mm]: tile 101x101x75

Description (provided by supplier): multi layers flooring built on site, 75 mm thickness, made of three bonded layers, with growing density, in particular:

- lower layer of 23 mm thickness: shock pad made of expanded and regenerated polyethylene – low and medium density;
- central layer of 42 mm thickness: made of agglomerate Underground rubber granulate with size of 2-4 and 3-5 mm (ratio 1:1) – medium density;
- layer of 10 mm thickness: made of agglomerate of coloured rubber granulate with size of 1-3,5 mm (Playground type) – high density.

This material shall also conform to the requirements of EN 1176-1, in particular, clauses 4 and 6.



Fig. 1 – sample section

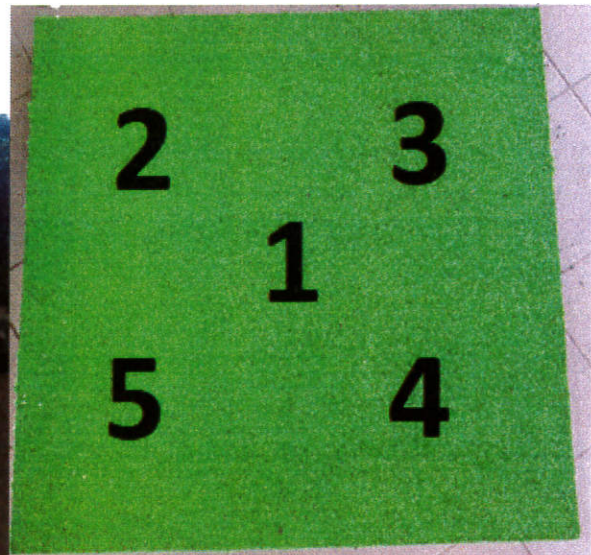


Fig. 2 – sample tested

CONDITIONS

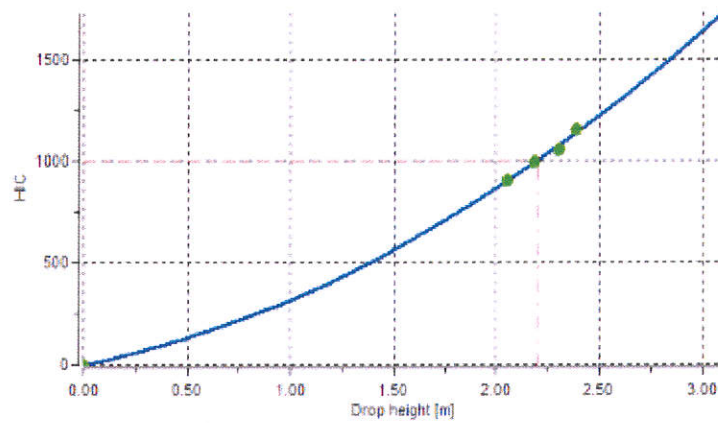
Temperature: 21°C

Humidity: 48%

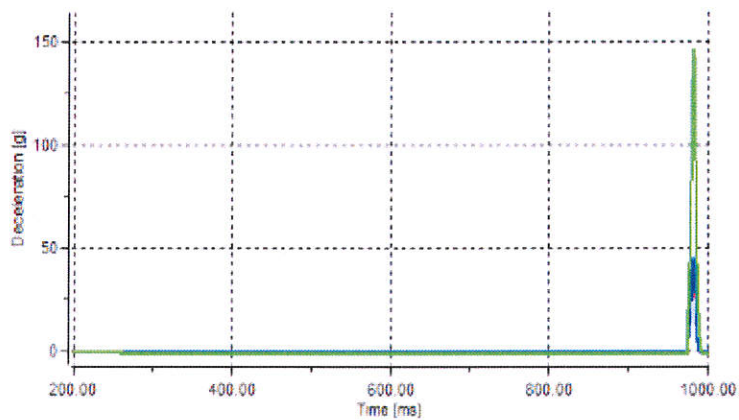
TEST RESULTS

Position 1:	centre of tile
Position 2:	diagonal 1
Position 3:	diagonal 2
Position 4:	diagonal 3
Position 5:	diagonal 4

HIC - Drop height



Deceleration - Time



Position 1		
measurement	height [m]	HIC
1	2.20	941.2
2	2.10	858.9
3	2.30	1022.8
4	2.38	1062.3
critical fall height [m]	2.2	

Position 2		
measurement	height [m]	HIC
1	2.30	1050.6
2	2.38	1153.0
3	2.18	997.0
4	2.05	906.1
critical fall height [m]	2.1	

Position 3		
measurement	height [m]	HIC
1	2.05	827.6
2	2.23	963.9
3	2.31	1017.3
4	2.39	1066.8
critical fall height [m]	2.2	

Position 4		
measurement	height [m]	HIC
1	2.39	961.1
2	2.49	1019.5
3	2.54	1057.5
4	2.29	900.4
critical fall height [m]	2.4	

Position 5		
measurement	height [m]	HIC
1	2.24	958.1
2	2.32	969.3
3	2.42	1090.7
4	2.50	1160.0
critical fall height [m]	2.3	

The critical fall height of the measured sample is **2.1 m** (position 2).

Laboratory Technician

Sara Mattei

Laboratory Director

Ing. Alberto Ruocco



*Results in this test report are referred only to tested sample. Additions, cancellations and or alteration are not allowed.
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