



TESTING SERVICES, INC.
 817 SHOWALTER AVE. • P.O. BOX 2041
 DALTON, GEORGIA 30722-2041
 PHONE: (706) 226-1400 • FAX: (706) 226-6118



CLIENT:	Rubber Resources	REPORT NUMBER:	44671A
	9901 Ideal Lane	LAB TEST NUMBER:	2023-6379-03
	Hudson, FL 34667	DATE:	May 8, 2009

Test Material The following sample was submitted by the Client as: **Everlast Kids ADA Mulch @ 3" Depth**

Sub Base: Concrete

Date of Receipt: April 27, 2009

Testing Period: April 28- May 6, 2009

Authorization: Dale Hawker

Test Requested: The submitted sample was evaluated for Shock Absorbing Properties in Accordance with the procedures outlined in *ASTM F 1292-04, Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.*

Test Results: Continued on the following pages ...

Prepared and signed by:

 Erle Miles, Jr. VP
 Testing Services Inc



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Client: Rubber Resources
 9901 Ideal Lane
 Hudson, FL 34667

Results:

Sample: Everlast Kids ADA Mulch at 3" Depth
Tested Dimension: 18" X 18" X 3" (Compacted Depth)
Test Procedure: ASTM F 1292-04
Impact Location: Center of Compacted Mulch
Missile: ANSI C Hemispherical Headform in Crown Position
 Total Drop Assembly Weight 4.6kg (10 lbs)
Test Equipment: Triax 2000 Surface Impactor
 Date of Last Calibration: 2/19/09 by Alpha Automation
Sample Pre-Condition: 50±10% RH, 72F±5F for a minimum of 24 hrs prior to testing
 Compacted 1,004 ± 32 lbs for 1 minute (18" X 18") Container

<u>Temperature:</u>	<u>Maximum Drop Height That Gives a G_{max} of 200 or Less and a HIC of 1000 or less</u>
Ambient, 72°F (23°C)	8'
Hot, 120°F (49°C)	7'
Cold, 25°F (-6°C)	8'
Critical Fall Height (CFH):	7'

Reference G_{max} Curves Included



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Client: Rubber Resources
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Results

Temperature: 72°F (23°C)

Sample Condition: Dry

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	21.2	5	7'	6.98'	126	649
2	21.2	3	7'	6.98'	135	720
3	21.2	2	7'	6.98'	124	638
Average			Drops 2,3		130	679

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	22.7	2	8'	8.01'	136	796
2	22.7	3	8'	8.01'	142	789
3	22.7	3	8'	8.01'	144	841
Average			Drops 2,3		143	815

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	24.1	2	9'	9.03'	178	1226
2	24.1	2	9'	9.03'	188	1319
3	24.2	0	9'	9.10'	227	1732
Average			Drops 2,3		208	1526



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Client: Rubber Resources
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Results

Temperature: 120°F (49°C)

Sample Condition: Dry

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	19.7	8	6'	6.03'	119	529
2	19.7	1	6'	6.03'	143	776
3	19.7	0	6'	6.03'	127	633
Average			Drops 2,3		135	705

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	21.3	2	7'	7.05'	161	969
2	21.2	1	7'	6.98'	156	912
3	21.2	7	7'	6.98'	139	754
Average			Drops 2,3		148	833

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	22.7	1	8'	8.01'	186	1251
2	22.7	2	8'	8.01'	152	931
3	22.7	0	8'	8.01'	168	1086
Average			Drops 2,3		160	1009



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Client: Rubber Resources
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Results

Temperature: 25°F (-6°C)

Sample Condition: Frozen

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	21.2	2	7'	6.98'	135	689
2	21.2	5	7'	6.98'	145	771
3	21.2	1	7'	6.98'	149	835
Average			Drops 2,3		147	803

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	22.7	5	8'	8.01'	176	1072
2	22.7	2	8'	8.01'	146	817
3	22.7	2	8'	8.01'	159	927
Average			Drops 2,3		153	872

Drop #	Velocity ft/sec	Angle°	Drop Ht. / Actual	Drop Ht. / Theoretical	Gmax	HIC
1	24.1	6	9'	9.03'	169	1064
2	24.1	0	9'	9.03'	182	1209
3	24.0	0	9'	8.95'	180	1183
Average			Drops 2,3		181	1196

END OF REPORT