



TÜV SÜD America Inc.
Product Safety Services
 47523 Clipper Drive
 Plymouth, MI 48170
 Phone: 734.455.4841

Surfacing Material Report – ASTM F1292-13

Client: <u>Rubber Cal, Inc.</u>	TUV Report No.: <u>72107433</u>
Manufacturer: <u>Rubber Cal, Inc.</u>	Report Date: <u>7/8/2015</u>
Manufacturing Location: <u>620 W. Warner Ave.</u>	Test Date: <u>6/30/15, 7/1/15 & 7/8/15</u>
<u>Santa Ana, CA 92707</u>	Initial Test <input checked="" type="checkbox"/>
Phone: <u>714 772 3000</u>	Follow up Test <input type="checkbox"/> Ref Job:
Commercial Name of product: <u>N/A</u>	Sample Receipt Date: <u>6/24/2015</u>
Date of Manufacture: <u>Unknown</u>	Ambient Air Temperature: <u>23.9°C</u>
No. of samples submitted: <u>9: 18 x 18 x 2.5" tiles</u>	Humidity: <u>36.0%</u>

Test Equipment:

Triax System 4: <input checked="" type="checkbox"/>	Environmental Chamber No.: <u>PLYP00101</u>
Triax System 1: <input type="checkbox"/>	Calibration Due Date: <u>6/22/16</u>
Accelerometer ID: <u>PLYP00089</u>	Environmental Chamber No.: <u>PLYP00069</u>
Accelerometer Calibration Due Date: <u>8/1/2015</u>	Calibration Due Date: <u>6/22/16</u>

Loose fill Material Sample Description:

Engineered Wood Fiber: <input type="checkbox"/>	Un-compacted Depth: _____	Inches
Loose Fill Wood: <input type="checkbox"/>		
Rubber: <input type="checkbox"/>		
Sand: <input type="checkbox"/>	Compacted Depth: _____	Inches
Gravel: <input type="checkbox"/>		
Other: <input type="checkbox"/>		

Unitary Sample Description:

Tiles <input checked="" type="checkbox"/>	Total Thickness: <u>2.5 in.</u>
Poured in Place <input type="checkbox"/>	Top Layer: <u>0.5 in.</u>
Other <input type="checkbox"/>	Base Layer: <u>2 in.</u>

Comments:

Determined maximum critical fall height : 6 Ft.

The results reported herein reflect the performance of the above described samples at the time of testing and at the temperature(s) reported. The results are specific to the described samples. Samples of surfacing materials that do not closely match the described samples will perform differently. The following data sheet provides an accurate representation of the test results. Compliance with this Standard does not constitute product certification.

Sample in compliance with ASTM F1292-13 at the temperature and rating specified? Yes No

Signature: <u>[Signature]</u>	Title: <u>Project Coordinator</u>	Date: <u>7/8/2015</u>
Reviewed by: <u>[Signature]</u>	Title: <u>Regional mgr.</u>	Date: <u>7/14/15</u>

Client: **Rubber Cal, Inc.**

TUV Report No.

72107433

Manufacturer: **Rubber Cal, Inc.**

Test Date:

6/30/15, 7/1/15 & 7/8/15

Drop	Determined Maximum Critical Fall Height (Ft.)	Reference Temperature -6°C, (21.2°F)				Reference Temperature 23°C, (73.4°F)				Reference Temperature 49°C, (120.2°F)			
		G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	6	156	822	19.7	6.033	157	874	19.7	6.033	161	969	19.7	6.033
2	6	154	806	19.7	6.033	154	857	19.7	6.033	163	965	19.7	6.033
3	6	155	808	19.7	6.033	159	905	19.7	6.033	163	983	19.7	6.033
Average		154.5	807			156.5	881			163	974		
Measured Surface Temperature		-6°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference ± 3°C, (5°F)			49°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		DRY				DRY				DRY			

Drop	One foot over (Ft.)	Reference Temperature -6°C, (21.2°F)				Reference Temperature 23°C, (73.4°F)				Reference Temperature 49°C, (120.2°F)			
		G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	7	169	1031	21.4	7.119	176	1105	21.4	7.119	179	1220	21.4	7.119
2	7	169	1031	21.3	7.053	183	1240	21.4	7.119	181	1273	21.4	7.119
3	7	172	1049	21.4	7.119	186	1220	21.4	7.119	174	1145	21.4	7.119
Average		170.5	1040			184.5	1230			177.5	1209		
Measured Surface Temperature		-6°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference ± 3°C, (5°F)			49°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		DRY				DRY				DRY			

Drop	One foot under (Ft.)	Reference Temperature -6°C, (21.2°F)				Reference Temperature 23°C, (73.4°F)				Reference Temperature 49°C, (120.2°F)			
		G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)	G-Max	HIC	Velocity (ft/s)	Theoretical Drop Height (ft.)
1	5	122	547	17.9	4.981	118	524	18.0	5.037	130	633	18.0	5.037
2	5	126	582	17.9	4.981	129	597	18.0	5.037	131	633	18.0	5.037
3	5	128	590	17.9	4.981	132	633	18.0	5.037	132	640	18.0	5.037
Average		127	586			130.5	615			131.5	636.5		
Measured Surface Temperature		-6°C	Max. Change from reference + 5°C, (5°F)			23°C	Max. Change from reference ± 3°C, (5°F)			49°C	Max. Change from reference -3°C, (-5°F)		
Sample Condition:		DRY				DRY				DRY			



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