



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

Surfacing Material Report – ASTM F1292-13

Client: Rubber-Cal, Inc.
 Manufacturer: Rubber-Cal, Inc.
 Manufacturing Location: Santa Ana, CA
 Phone: (714) 772-3000
 Commercial Name of product: Eco-Safety 3Inch Tile
 Date of Manufacture: Unknown
 No. of samples submitted: 9 - 20in. X 20in. Tiles

TUV Report No.: 72104957-2
 Report Date: 4/14/2015
 Test Date: 4/13/15 and 4/14/15
 Initial Test
 Follow up Test Ref Job:
 Sample Receipt Date: 4/8/2015
 Ambient Air Temperature: 22.5°C
 Humidity: 26.0%

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>6/17/15</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>8/11/15</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"/>	Compacted Depth:	Inches
Sand:	<input type="checkbox"/>		
Gravel:	<input type="checkbox"/>		
Other:	<input type="checkbox"/>		

Unitary Sample Description:

Tiles:	<input checked="" type="checkbox"/>	Total Thickness:	<u>3.0in.</u>
Poured in Place:	<input type="checkbox"/>	Top Layer:	<u>0.5in.</u>
Other:	<input type="checkbox"/>	Base Layer:	<u>2.5in.</u>

Comments:

**The maximum critical fall height of the above described 7 Ft.
sample was determined to be:**

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: Timothy Fambria Title: Project Coordinator Date: 4/14/15

Reviewed by: [Signature] Title: Regional mgr. Date: 4/14/2015

Client: Rubber-Cal, Inc.

TUV Report No.

72104957-2

Manufacturer: Rubber-Cal, Inc.

Test Date:

4/13/15 and 4/14/15

Drop	Specified Impact 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	7	145	883	21.3	7.053	145	856	21.3	7.053	147	913	21.3	7.053
2	7	149	899	21.3	7.053	154	929	21.3	7.053	145	919	21.3	7.053
3	7	147	868	21.3	7.053	147	890	21.3	7.053	150	960	21.3	7.053
Average		148	883.5			150.5	909.5			147.5	939.5		
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			

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	8	163	1108	22.8	8.081	175	1214	22.8	8.081	173	1242	22.8	8.081
2	8	165	1098	22.8	8.081	172	1183	22.8	8.081	175	1268	22.8	8.081
3	8	173	1147	22.8	8.081	177	1223	22.8	8.081	175	1248	22.8	8.081
Average		169	1122.5			174.5	1203			175	1258		
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	6	128	690	19.7	6.033	125	652	19.7	6.033	127	680	19.7	6.033
2	6	134	694	19.7	6.033	135	714	19.7	6.033	133	724	19.7	6.033
3	6	134	691	19.7	6.033	133	696	19.7	6.033	128	686	19.7	6.033
Average		134	692.5			134	705			130.5	705		
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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