



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

IPEMA Surfacing Material Report – ASTM F1292-09

Participant: <u>Hanover Specialties</u>	TUV Report No.: <u>QI1304328-1</u>
Main Office Address: <u>35 Feldman St.</u>	Report Date: <u>4/25/2013</u>
<u>Bohemia, NY 11716</u>	Test Date: <u>4/23/13 and 4/25/13</u>
Phone: <u>(631) 231-1300</u>	Selection: <input type="checkbox"/>
Manufacturing Location ID: <u>Bohemia, NY</u>	Initial: <input checked="" type="checkbox"/>
Commercial Name of product: <u>Vitriturf V-10</u>	Follow up <input type="checkbox"/> Ref Job:
Date of Manufacture: <u>Unknown</u>	Sample Receipt Date: <u>4/22/2013</u>
No. of samples submitted: <u>3 - 18in. X 18in. PIP Tiles</u>	Ambient Air Temperature: <u>23.2°C</u>
	Humidity: <u>25.0%</u>

Test Equipment:

Triax System 1: <input checked="" type="checkbox"/>	Environmental Chamber No.: <u>PLYP00101</u>
Triax System 2: <input type="checkbox"/>	Calibration Due Date: <u>7/31/13</u>
Accelerometer ID: <u>PLYP00089</u>	Environmental Chamber No.: <u>PLYP00069</u>
Accelerometer Calibration Due Date: <u>6/29/2013</u>	Calibration Due Date: <u>7/31/13</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 type="checkbox"/>	Total Thickness: <u>2.5in.</u>
Poured in Place: <input checked="" type="checkbox"/>	Top Layer: <u>0.5in.</u>
Other: <input type="checkbox"/>	Base Layer: <u>2.0in.</u>

Comments:

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

Sample in compliance with ASTM F1292-09 at the temperature and rating specified? Yes No

Signature: *Trinity Fanchia* Date: 4/25/13

Reviewed by: *Scott G. Smith* Date: 4/25/13

Client: Hanover Specialties

TUV Report No.

Q11304328-1

Manufacturer: Hanover Specialties

Test Date:

4/23/13 and 4/25/13

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	6	158	1010	19.7	6.033	145	903	19.7	6.033	138	834	19.7	6.033
2	6	156	988	19.9	6.156	152	979	19.9	6.156	145	892	19.8	6.095
3	6	154	965	20.0	6.218	151	967	19.8	6.095	146	888	19.9	6.156
Average		155	976.5			151.5	973			145.5	890		
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	171	1215	21.3	7.053	164	1168	21.4	7.119	162	1135	21.3	7.053
2	7	177	1258	21.4	7.119	166	1187	21.4	7.119	166	1177	21.4	7.119
3	7	178	1301	21.4	7.119	171	1233	21.4	7.119	167	1176	21.4	7.119
Average		177.5	1279.5			168.5	1210			166.5	1176.5		
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 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	133	736	18.0	5.037	126	695	18.0	5.037	117	607	18.1	5.093
2	5	136	756	18.1	5.093	128	700	18.2	5.149	126	663	18.2	5.149
3	5	138	783	18.2	5.149	131	712	18.2	5.149	126	671	18.2	5.149
Average		137	769.5			129.5	706			126	667		
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			



America