



TÜV SÜD America Inc.

Product Safety Services

47523 Clipper Drive

Plymouth, MI 48170

Phone: 734.455.4841

IPEMA Surfacing Material Report – ASTM F1292-09

Client: Hanover Specialties
Manufacturer: Hanover Specialties
Manufacturing Location: Bohemia, NY

TUV Report No.: Q11201960-2
Report Date: 3/2/2012
Test Date: 2/28, 2/29, and 3/1/12
Initial Test
Follow up Test **Ref Job:**
Sample Receipt Date: 2/17/2012
Ambient Air Temperature: 22.2°C
Humidity: 21.0%

Phone: (631) 231-1300
Commercial Name of product: VitriTurf 4.5in.
Date of Manufacture: Unknown
No. of samples submitted: 3 - 18in. X 18in. PIP Tiles

Test Equipment:

Triax System 1: Environmental Chamber No.: PLYP00101
Triax System 2: Calibration Due Date: 8/1/12
Accelerometer ID: PLYP00089 Environmental Chamber No.: PLYP00069
Accelerometer Calibration Due Date: 6/1/2012 Calibration Due Date: 8/1/12

Loose fill Material Sample Description:

Engineered Wood Fiber: Un-compacted Depth: _____ Inches
Loose Fill Wood
Rubber:
Sand: Compacted Depth: _____ Inches
Gravel:
Other:

Unitary Sample Description:

Tiles Total Thickness: 4.5in.
Poured in Place Top Layer: 0.5in.
Other Base Layer: 4.0in.

Comments:

Per customer request, sample was initially tested at 10ft. Based on results, sample was then tested at 11ft. Results are reported at 10 and 11ft.

The above described sample was tested at : 11 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: Timothy Fanelia

Date: 3/2/12

Reviewed by: Scott C. Smith

Date: 3/2/12

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Test Date: 2/28, 2/29, and 3/1/12

| 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) | G-Max | HIC | Velocity (ft/s) | G-Max | HIC | Velocity (ft/s) |
| 1 | 10 | 110 | 704 | 25.3 | 120 | 746 | 25.3 | 116 | 726 | 25.3 |
| 2 | 10 | 119 | 751 | 25.4 | 128 | 810 | 25.5 | 121 | 761 | 25.4 |
| 3 | 10 | 118 | 740 | 25.5 | 130 | 821 | 25.5 | 123 | 769 | 25.5 |
| Average | | 118.5 | 745.5 | | 129 | 815.5 | | 122 | 765 | |
| Measured Surface Temperature | | (-6°C) | Max. Change from reference + 5°C ,(9°F) | | 24°C | Max. Change from reference 3°C ,(5.4°F) ± | | 49°C | Max. Change from reference -3°C ,(-5.4°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) | G-Max | HIC | Velocity (ft/s) | G-Max | HIC | Velocity (ft/s) |
| 1 | 11 | 122 | 820 | 26.6 | 132 | 869 | 26.5 | 130 | 897 | 26.6 |
| 2 | 11 | 130 | 915 | 26.7 | 142 | 976 | 26.7 | 137 | 976 | 26.7 |
| 3 | 11 | 128 | 865 | 26.7 | 139 | 943 | 26.7 | 136 | 946 | 26.7 |
| Average | | 129 | 890 | | 140.5 | 959.5 | | 136.5 | 961 | |
| Measured Surface Temperature | | (-6°C) | Max. Change from reference + 5°C ,(9°F) | | 24°C | Max. Change from reference 3°C ,(5.4°F) ± | | 49°C | Max. Change from reference -3°C ,(-5.4°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) | G-Max | HIC | Velocity (ft/s) | G-Max | HIC | Velocity (ft/s) |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| Average | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Measured Surface Temperature | | °C | Max. Change from reference + 5°C ,(9°F) | | °C | Max. Change from reference 3°C ,(5.4°F) ± | | °C | Max. Change from reference 3°C ,(-5.4°F) | |
| Sample Condition: | | | | | | | | | | |



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