Case Study: Recreation

Singing Hills

Industry: Recreation Center  
Location: Dallas, Texas  
Architect: City of Dallas

The City of Dallas Parks and Recreation chose PlybooSport for their Singing Hills Recreation center. The installation was so successful, they decided to install bamboo in their other six centers.

"PlybooSport has a consistent, appealing visual (brighter than maple), its formaldehyde free content pushes forward our mission to promote healthier lifestyles within the community, and the rapidly renewable properties of bamboo are well-aligned with the [city’s] green initiatives," says Stefan Kesler, Project Manager, City of Dallas.

Three other centers are now complete with the remainder scheduled for completion in 2013.
### Specifications

#### Possible LEED Credits:

- Low emitting materials and certified wood
- Floorscore certified

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#### Physical / Mechanical Properties - PlybooSport Flooring

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>3/4” x 2 1/4” x 72” - 19mm x 55mm x 1830mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation</td>
<td>Floating resilient, resilient sleeper or fixed resilient</td>
</tr>
<tr>
<td>ASTM E648: Critical Radiant Flux</td>
<td>Class 1</td>
</tr>
<tr>
<td>ASTM D1037: Dimensional Stability</td>
<td>Linear Expansion: Parallel -0.04%, Perpendicular -0.10%, Thickness Swell -0.13%, Hardness (Janka Ball Test): 1750 lbf average</td>
</tr>
<tr>
<td>ASTM 4442: Moisture Content</td>
<td>6-9% average</td>
</tr>
<tr>
<td>ASTM D5116: Organic Emission (CA Section 01350)</td>
<td>Classroom scenario/Office scenario: mnb v</td>
</tr>
</tbody>
</table>

#### EN 14904

- BS-EN 14904
- DIN 18032-2
- (Order of results: Average)

- i. Multi-Use W
  - Ball Rebound: 96% average
  - Force Reduction: 54% average
  - Vertical Deflection: 2.8mm average
  - Area Indentation: 15% average
  - Rolling Load (1500N; 337 lbf): Pass
- ii. Pro B
  - Ball Rebound 97% average
  - Force Reduction: 46% average
  - Vertical Deflection: 2.1mm average
  - Rolling Load (1500N, 337 lbf): Pass
- iii. Soft Touch Y
  - Ball Rebound: 90% average
  - Force Reduction: 62% average
  - Vertical Deflection: 3.5mm average
  - Rolling Load (1500N; 337 lbf): Pass

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#### Physical / Mechanical Properties - PlybooSport Underlayment System

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>1/4” x 4’ x 50’ - 1 lb/sqft</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM E492: Sound Impact Insulation</td>
<td>54 (over 6” concrete)</td>
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<tr>
<td>ASTM E989: Sound Impact Insulation</td>
<td>58 (over 6” concrete/6” fiberglass)</td>
</tr>
<tr>
<td>ASTM D3676: Density Pounds/cubic foot</td>
<td>45lbs/ft³</td>
</tr>
<tr>
<td>ASTM D2240: Durometer</td>
<td>45 +/- 2 Shore A Hardness</td>
</tr>
<tr>
<td>ASTM D5116: VOC’s Closed Chamber 1.0m +/- .05 m/3</td>
<td>SCQQMD</td>
</tr>
<tr>
<td>DOC-FF 170: Flammability</td>
<td>Passed</td>
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</tbody>
</table>