

ASTM F1292 Test Report

Date: November 7, 2007

There shall be one report for each play structure or functionally linked play structures and for each type of surface material. Each test shall comprise of a minimum of 3 impact locations per playspace or type of surfacing material with three drops from the same height to the same point. The report shall be descriptive enough to assist the user of the report in determining compliance with contracts and Standards. The CSA Z614-03 and the ASTM F1292 set minimum values as the Gmax shall not exceed 200 and the HIC shall not exceed 1000 from the drop height stipulated by the owner/operator prior to purchase.

| | | |
|-----------------------------|-------------------------------|--|
| Agency requesting the tests | Playground Site East Swings | Manufacturer/Supplier/Installer of Surface |
| Name KEO & Associates, Inc. | Name Adams/Butzel Playgrounds | Name EVERPLAY Installation Inc. |
| Address 18286 Wyoming Ave. | Address Lyndon | Address 18 Automatic Rd., Unit 12 |
| City Detroit State MI | City Detroit State MI | City Brampton Prov ON |
| Zip 48221 Country USA | Zip/Postal Country | Postal L6S 5N5 Country Canada |
| Contact name Andrew Heffner | Contact City of Detroit | Contact name Henry Helps |
| Contact phone 313-340-5000 | Contact phone 313-224-1109 | Contact phone 416-410-3056 |

| | | | |
|---|---|--|-----------|
| Date of test: | November 7, 2007 | Name of test apparatus: | Triax2000 |
| Description of surface(s): | Poured-in-place surface with EPDM top layer in red, yellow, green & blue | | |
| Type: | Unitary | Product name: | EVERPLAY |
| Date installed: | October 2007 | Critical height: | >8' |
| Thickness of surface material: | 85mm | maximum: | 90mm |
| | | minimum: | 80mm |
| | | average: | 85mm |
| Evenness (comment on wear patterns and disruption): | | | |
| Seams: location: | At colour changes | gaps and condition: | No |
| | | level across seams: | Yes |
| Fasteners: | No | type: | Na |
| | | condition: | |
| Weather condition of test: | Cloudy and cool | frozen: | No |
| | | dry: | Yes |
| | | wet: | No |
| Surface condition: | New with some dirt and gravel on the surface from the construction site around the playground | | |
| Temperature: ambient air: | 45F | surface temperature taken 6" depth for loose fill or 1/2" depth for unitary: | 49F |
| Other conditions or observations: | | | |
| Mats, walkways or ramps: | | number: | |
| | | condition: | |
| | | requires impact test: | yes/no |
| Pictures (file names); general playground | | test locations: | |

The drop height each test location shall be the greater of the critical height for the surface material, the fall height for the play structure as stated in the relevant playground Standard or the height specified by the owner/operator prior to purchase. The drop height is physically measured. The drops are performed from the same drop height to the same point on the surface.

| Drop # | Drop height | Drop location in relation to structure | Picture | Velocity ft/sec | Gmax | HIC |
|---------|-------------|--|---------|-----------------|------|-----|
| 1 | 7.9' | East side north swing bay | DSC8814 | 22.3 | 74 | 348 |
| 2 | | | | 22.3 | 76 | 333 |
| 3 | | | | 22.3 | 78 | 345 |
| Av. 2&3 | | | | | 77 | 339 |
| Drop # | Drop height | Drop location in relation to structure | Picture | Velocity | Gmax | HIC |
| 1 | 7.9' | East side south swing bay | DSC8815 | 22.3 | 70 | 355 |
| 2 | | | | 22.3 | 71 | 351 |
| 3 | | | | 22.3 | 75 | 380 |
| Av. 2&3 | | | | | 73 | 366 |
| Drop # | Drop height | Drop location in relation to structure | Picture | Velocity | Gmax | HIC |
| 1 | 7.9' | West side center of swings | DSC8816 | 22.3 | 76 | 355 |
| 2 | | | | 22.3 | 78 | 354 |
| 3 | | | | 22.3 | 77 | 346 |
| Av. 2&3 | | | | | 78 | 350 |

The results herein reflect the performance of the tested playground surface at the time of testing and at the temperature(s) and ambient conditions reported. Performance will vary with temperature, moisture content and other factors.

| | | | |
|--------------------|------------|-----------------------|--|
| Test performed by: | Rolf Huber | Authorized signature: | |
|--------------------|------------|-----------------------|--|