Apex Surfacing Playground Specifications

DESCRIPTION

Apex Surfacing Playground System is a poured in place play surface consisting of EPDM synthetic granule rubber crumb bound together with a polyurethane binder. The thickness of this play system ranges from 13 mm to 200 mm depending on application type. Our certified installations have been created in order to surpass industry standards while offering a large variation in colour and design. The Playground System has been tested in accordance with ASTM F1292 for both Head Injury Criteria (HIC) and Gmax. The Playground System is bonded with polyurethane at every thickness for quality assurance.

Every **Apex Surfacing** playground is installed to meet a performance criteria less than 200 Gmax and 1000 HIC for any structure intended for use of children under the age of 12 when tested according to ASTM F1292. Test results performed on the installed **Apex Surfacing** playgrounds are tested using a Triax2015 instrument (conformed to requirements of ASTM F1292-09) with the drop height determined by the top of existing barriers, rails, climbers or swings.

Every **Apex Surfacing Playground** will meet accessibility requirements as requested.

APPLICATION

Apex Surfacing Playground Systems are intended as a recreational surfaces that is resilient, durable, attractive and permeable to water.

CUSTOMIZE

The **Apex Surfacing Playground System** can be designed with multiple colour variances. It is offered in 20 different colours of EPDM synthetic top layers. Logos and decals can be provided upon request. The Apex Surfacing Playground System uses no recycled rubber granules on the finished surface unless requested.

INSTALLATION CONDITIONS

The **Apex Surfacing Playground System** must be installed at temperatures above 5 degrees C. It is recommended the temperature should not exceed 35 degrees C when an installation occurs.

Humidity must be monitored as well as moisture to ensure proper bonding and cure time of the project.

INSTALLATION PROCEDURE

Part 1 Base Installation

1.1 Granule Base Preparation

1.1a Sub-base compacted to 95% proctor density and grade must represent the outline of the final surface.
1.1b Geotextile must be placed over the prepared sub-base
1.1c Granule base must consist of compacted 3/4" crusher dust or limestone base material. The granule base must be a minimum of 100-200mm once compacted. Conditions on site may require additional material. Base must be inspected to ensure proper requirements are met.

1.2 Concrete or Asphalt Base

1.2a The existing concrete or asphalt must have required drainage and represent the outline of the final surface.
1.2b Concrete must be inspected to ensure proper requirements are met.

1.3 Required Slope

1.3a A slope of 1-3% is recommended for all installs. There must be no more than 30% for any type of application.

Part 2 Thickness of the Apex Surfacing Playground System

2.1 Application will determine how thick the **Apex Surfacing Playground System** is applied. When the system is being applied to a playground surface will be specified according to CSA, ASTM and CPSC standards for playground surfacing. The surface must be installed at a thickness that will provide a Gmax less than 200 and a HIC less than 1000 when the installation has been tested with a Triax 2015 instrument between 10 and 25 days after installation is complete. These tests must be applied and certification provided prior to the acceptance of any **Apex Surfacing** Playground System being installed. The determined drop height for these tests will be derived from the top of all structures including railings, barriers, slides and climbers. For swings the drop height will be the top of the suspending bar.

Part 3 Installation

3.1 The **Apex Surfacing** Playground System can only be installed by certified **Apex Surfacing** Paving installers with a minimum of three years installation experience.

3.2 The rubber crumb and polyurethane binder is mixed on site with a mechanical mixer and bonded with a polyurethane binder. Strict mixing ratios must be followed for proper bonding and elasticity.
3.3 **The Apex Surfacing Playground System** contains polyurethane binder throughout its entire thickness. There is no loose rubber.
3.4 **The rubber surface must be installed as per manufacturer's installation specifications including compliance with appropriate cure times for base layer and top coat.**

Part 4 Transitions and Joints

4.1 On concrete and asphalt surfaces a bevel must be made when there is no fixed edge to the material for proper ware.
4.2 Transitions are created on the outside edges of each project so the rubber will run level with existing substrate. These bevels must be clean for proper bonding and must mirror the final outline of the surface.

Part 5 Edging

5.1 When a **Apex Surfacing Playground System** is installed over a granular base, the installation must have a curb, solid end-point or trenched termination to protect the quality of the product.
5.2 When a **Apex Surfacing Playground System** is installed over a hard base, the installation should either have a cut edge to termination, a curbing or hard end-point for the perimeter of the project.

WARRANTY- 3 YEAR

Every **Apex Surfacing** agent warrants that the **Apex Surfacing Playground System** is installed to conform with the formulas and standards as implied by this contract. This warranty is in lieu of any other warranties expressed. To maintain the warranty, the **Apex Surfacing** maintenance procedures must be used as directed.

The sole remedy of the buyer against **Apex Surfacing** or their agent shall be to replace defective material for a period of three years after the installation is complete. No other remedy, including, but not limited to, incidental or consequential damages for lost profits, sales, injury to person or property, or any other incidental, or consequential loss, shall be available to the owner of buyer of this system.

Apex Surfacing binders are manufactured binders for the **Apex Surfacing Playground System**. These are the binders that have been tested and manufactured for every playground system installed by **Apex Surfacing**. The binders used in **Apex Surfacing Playground System** are latex-free with no dyed material. The **Apex Surfacing** binder allow every surface to remain flexible and resilient to perform within the requirements of the ASTM F1292-09 for the

mentioned warranty period and field tested from the same drop heights and drop locations of the initial **Apex Surfacing** installation with the Triax2015. The results of the drop tests with the Triax2015 must have a Gmax less than 200 and HIC less than 1000 after the initial installation. The performance of the maintained surface will such as not to exceed a Gmax of 200 or HIC of 1000 from the original drop heights during the warranty period. This warranty will only remain in effect after a plan is outlined with the drop locations, heights and results to be forwarded to **Apex Surfacing** within 50 days of the original installation. Note that fading or removal of gloss is considered to be normal wear or tear of the surface. Vandalism and other willful acts are not included in warranty. Improper drainage, flooding and site restrictions are not included in this warranty.

The **Apex Surfacing Playground System** will continue to perform to the requirements of CSA Z614-07, Annex H with regard to gaps, slopes and changes in vertical height provided the problem is not related to a failure of the sub-base.

To maintain the warranty in effect, the **Apex Surfacing** maintenance procedures must be adhered to. Note that mild fading or gloss reduction, slight colour variation from colour samples or brochures and wear of the EPDM colour are contributed to normal wear and tear. Damage due to stains, burns, cuts, gouges and indentations caused by mechanical (heavy equipment) or improper attire (high heels) are not covered. A split in the surface that does not allow for the free insertion of a Canadian or US quarter, is not a crack requiring repair. Not included is vandalism or other wilful acts.