# Fall Zone, Inc.

# Poured-In-Place Rubber Safety Surfacing





SPIDIN





According to statistics, approximately 70% of all playground injuries are caused by falls to the surface. This is why Fall Zone, Inc. developed this two layer resilient rubber system that is mixed and poured on site by our trained professional installers. We are both the manufacturer and installer of our proven poured-in-place system. The first layer, or cushion course, consists of a special blend of recycled tire buffing and a premium urethane binder. The cushion course can be installed at various thicknesses to maintain the allowable fall height criteria of the play system that is installed. The second layer, or wearing course, consists of the highest quality EPDM or TPV granules blended with the same premium urethane binder. This combination of materials, plus the installation by our own crew, assures a safe, long lasting and attractive surface.

## **BENEFITS & FEATURES**





# LOW MAINTENANCE Requires no raking, debris can be swept or blown off

- SLIP RESISTANT
  Non-skid wet or dry
- HANDICAP ACCESSIBLE Conforms with the Americans with Disabilities Act and ASTM F 1951-99

#### • <u>SEAMLESS</u>

No unsightly seams or tripping hazards (Day seams may be necessary for larger areas)

# DURABLE Guaranteed for five years

- <u>POROUS</u> Water drains through the surface
- <u>CONFORMS WITH CPSC GUIDELINES</u> Exceeds "G" and "HIC" standards

#### • <u>RECYCLED</u>

The majority of the surface is recycled tire buffing, benefitting the environment





### **INTRINSIC & PHYSICAL PROPERTIES**

Health & Environment after Curing:	Non-toxic, Non-allergenic, Non-polluting
Weathering & Wearing:	Very Durable
Fatigue Resistance:	Unaffected by repeated blows
Change of properties by temperatures:	Product cannot be damaged by extreme cold or hot weather (e.g. 0 to 140° F)
Static Coefficient of Friction: (ASTM D2047-99)	Non-skid, wet or dry
Porosity:	Rainfall per hour, equivalent 12"
Tensile Strength & Elongation: (ASTM D412-98a)	Max. Load, Psi - 167 Elongation % - 180
Flammability (ASTM D2859-96):	Passed







#### **Specifications**

#### Part 1 - General

#### 1.1 <u>Work Included</u>

This work included finishing and installing the specified safety surface.

#### 1.1.1 Description of System

**Fall Zone, Inc./Safety Turf** shall be poured-in-place to provide a resilient, rubber surface installed over a base as specified. The surfacing contractor shall be responsible for all labor, materials, tools, and equipment to perform all work and services for the installation of the surface.

#### 1.1.2 **Quality Assurance**

Impact attenuation test results will be provided to the owner's representative. This will also include HIC test results. Test results shall meet or exceed **ASTM-F1292-13 Impact Attenuation Guidelines** of 200 G's or less from the actual fall height. HIC test results shall be less than 1000 at this fall height. Surface shall be accessible per **ASTM-F1951-99 Determination of Accessibility of Surface Systems Under and Around Playground Equipment.** 

#### Part 2 - Products

#### 2.1 Acceptable Manufacturer

**Fall Zone/Safety Turf, Inc.**, represented locally by General Recreation, Inc. 800-726-4793. Any product or surfacing contractor that has not met the prior approval requirements of this section shall not be approved. **Materials** 

#### 2.1.1 <u>Materials</u>

**Poured Base Layer** - A precise combination of recycled tire buffing mixed on site with a MDI based polyurethane binder.

**Poured 1/2"** Top Layer - EPDM and/or TPV rubber granules (1-4 mm size) and a MDI based polyurethane binder. (Note: An Aliphatic Binder may be used if initial "yellowing" of light colored granules is undesirable) Color - Colors will be chosen by owner or owner's representative.

#### Part 3 - Procedure

#### 3.1 <u>Sub Base</u>

a) If the surface is existing (or new) asphalt or concrete, a 1/2" deep by 1/2" wide keyway is to be cut into the surface along the perimeter of the safety surface area. This will provide for a beveled perimeter edging allowing for barrier free accessibility.

b) If asphalt or concrete is not used, then the sub base will be a compacted stone base. This base shall be prepared with a minimum of 4" of 2B 3/4" stone that is spread and compacted to a flat surface leaving the thickness of the required safety surface below finish level. A polypropylene filter fabric will be installed on top of the compacted stone base.

### **3.1.1** Installation Thickness - Total minimum depth of the safety surface will be 2". The thickness may be adjusted to meet the fall height requirement noted in section 1.1.2.

**Poured Base Layer** - The 1 1/2" minimum layer of recycled tire buffing will be mixed on site with a MDI based polyurethane binder in a mortar mixer. Mix buffing until they are coated uniformly. This layer will be poured in place by means of screeding and hand trowel. Edge conditions shall be per project requirements. (Note: This layer will be adjusted to the correct thickness per fall height requirements).

**Poured Top Layer** - The 1/2" poured top layer shall be composed of EPDM and/or TPV granular rubber. The granules will be mixed on site with a MDI base polyurethane binder in a mortar mixer. Mix granules until they are coated uniformly. The top layer will be poured-in-place and hand trowel or rolled. If the safety matting is installed over existing asphalt or concrete, the granules will be troweled into the keyway to provide a smooth transition from the existing surface onto the safety matting.

**Edges** - Surface edges shall be flush with the edge of adjacent area, or be such that there is a smooth transitions onto the safety matting from the existing surface, or per owner's requirements.

**<u>Porosity</u>** - Surface shall be porous to the extent of allowing the equivalent of 12" per hour of rainfall to flow through it. **Traction** - Surface shall be non-skid, wet or dry.

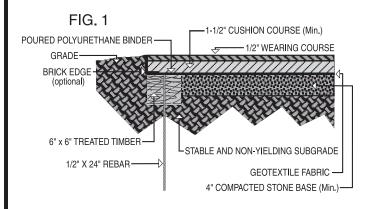
Softness - Surface deflection with a 30 lb. Load shall be1/4" to 1/2" with 99% recovery.

Health & Environment After Curing - Surface shall be non-toxic, non-allergenic and non-polluting.

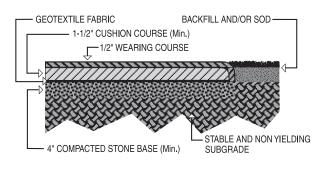
#### 3.1.2 Protection

The Fall Zone/**Safety Turf** surface shall be protected from foot traffic for a minimum of 24 hours after installation to allow the surface to cure. Note: This curing time may be longer in colder weather.

# **INSTALLATION DETAILS**



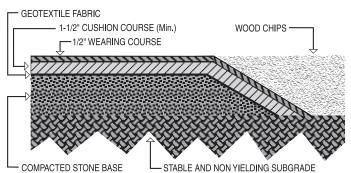


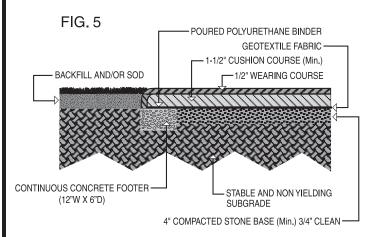


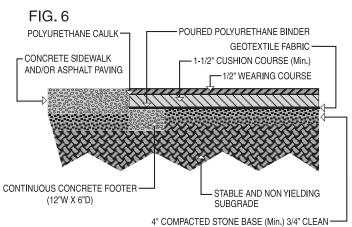
# -EXISTING ASPHALT OR CONCRETE PAVING

FIG. 2

#### FIG. 4





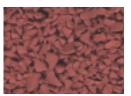


### **Fall Zone Standard EPDM Color Choices**



**269 BEIGE** 

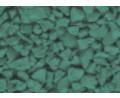
**212 LIGHT BLUE** 



214 RED



**207 DARK BLUE** 



**276 DARK GREEN** 

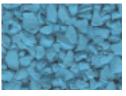


**201 BRIGHT GREEN** 

## **Fall Zone Premium EPDM Color Choices**



253 EGGSHELL\*



203 TEAL\*





290 BRIGHT YELLOW\*





231 BROWN



205 ORANGE\*

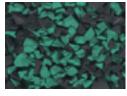


242 PURPLE\*

### Fall Zone Standard EPDM 50% Color 50% Black Choices



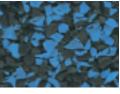
**BEIGE/BLACK** 



**GREEN/BLACK** 



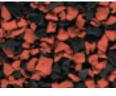
**BRIGHT GREEN/BLACK** 



LIGHT BLUE/BLACK



DARK BLUE/BLACK



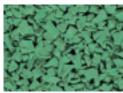
**RED/BLACK** 

- All colors may be mixed with Black (50% Color/50% Black).
- All colors are available mixed in any combination.
- Sample combinations are available upon request.

\* Aliphatic binder recomended.

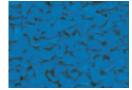
### **Fall Zone Standard TPV Color Choices**





RH10 GREEN





**RH20 STANDARD BLUE** 



**RH22 LIGHT BLUE** 



RH30 BEIGE



**RH61 LIGHT GREY** 

## Fall Zone PremiumTPV Color Choices



**RH02 BRIGHT RED** 



RH21 PURPLE







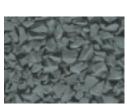
**RH40 EARTH YELLOW** 



**RH41 BRIGHT YELLOW** 



**RH50 ORANGE** 



**RH60 DARK GREY** 

















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