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Playpour™ Specifications

Components manufactured by ECORE International™

**Playpour™ 2-Layer Poured In Place Rubber
Playground Surfacing Specification**

PART 1 – General

1.01 POURED IN PLACE RUBBER PLAYGROUND SURFACING

A. Playpour™ Playground Surfacing is a 2-layer, seamless system comprised of a base layer of 100% post-consumer recycled SBR rubber & polyurethane binder and a top layer of EPDM rubber and polyurethane binder. The porous system is field-applied in any configuration and dimension to achieve required fall heights. Playpour™ is IPEMA certified.

1.02 SAFETY AND TESTING

- A. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.
- B. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- C. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
- D. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.
- E. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
- F. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment
- G. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

1.03 PERFORMANCE REQUIREMENTS

- A. Shock attenuation (ASTM F1292) Gmax - Less than 200
- B. Head injury criteria - Less than 1000
- C. Flammability (ASTM D2859): Pass.
- D. Tensile Strength (ASTM D412): 60 psi (413 kPa).
- E. Tear Resistance (ASTM D624): 140%.
- F. Water Permeability: 0.4 gal/yd²/second.

- G. Accessibility: Comply with requirements of ASTM F1951.
- H. Dry Static Coefficient of Friction (ASTM D2047): 1.0.
- I. Wet Static Coefficient of Friction (ASTM D2047): 0.9.
- J. Dry Skid Resistance (ASTM E303): 89.
- K. Wet Skid Resistance (ASTM E303): 57.

1.04 APPROVALS

Playpour™ Poured-in-Place Playground Surfacing is certified by the International Play Equipment Manufacturers Association (IPEMA). Contact manufacturer for information on approvals by major owners, agencies and other industry entities.

Environmental Consideration; this system makes extensive use of post consumer recycled tire rubber as a major component.

1.05 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Verification Samples: Submit manufacturer's standard verification samples of 9" x 9" minimum.
- D. Quality Assurance/Control Submittals: Submit the following:
 - 1. Certificate of qualifications of the surfacing installer.
- E. Closeout Submittals: Submit the following:
 - 1. Warranty documents specified herein.

1.06 QUALITY ASSURANCE

- A. Utilize an installer trained and approved by the manufacturer, having experience with other projects of the scope and scale of the work described in this section.

1.07 DELIVERY & STORAGE

- A. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Store materials protected from exposure to harmful environmental conditions and at a minimum temperature of 40 degrees F and a maximum temperature of 90 degrees F.

1.08 PROJECT SITE CONDITIONS

- A. Install surfacing on a dry sub-surface with no prospect of rain within initial drying period, and within 40 degrees F and 90 degrees F.
- B. There are three (3) Sub-Base applications acceptable for “PlayPour” Poured In Place applications:
- Installations may be performed over 95% crushed aggregate/stone base, typical thickness of 4-6” to allow for proper compaction rates. See Also “Crushed Stone Specifications”
 - Installations may be performed over fully cured (30 days) Asphalt.
 - Installations may be performed over Concrete with a minimum of 7 Days cure time and as much as 30 days dependent on conditions and temperature

1.09 LIMITATIONS

Some chemicals may cause damage to the playground surface and should be avoided. They include disinfectants, concentrated chlorine bleach, gasoline, diesel fuel, hydraulic and lubricating oils, acids and organic solvents.

Though not commonly used in water play areas, pool surrounds and similar applications, dissolved minerals and other chemicals (hydrochlorides) may cause surface discoloration over time. This condition, should it occur, is not considered to be a product failure.

1.10 WARRANTY

Playground surface shall maintain required impact attenuation characteristics and be guaranteed against defects in workmanship and materials for a period of no less than (5) Five Years from date of completion of work. Typical wear, abuse, or neglect will be excepted. Maintenance requirements must be maintained for duration of warranty period.

1.11 MAINTENANCE

Hose off entire playground surface to remove food, drink, sand, dirt and loose debris. A pressure washer may be used, but do not exceed 1500 psi (10 MPa) pressure or place nozzle closer than 12" to surface. While surface is still damp, apply a mild household or commercial cleaner to a small area using a sprayer. Scrub using a medium bristle brush. Repeat as necessary on heavily stained areas. Once entire surface has been cleaned, rinse using a garden hose with spray nozzle attachment. Dependent on the use of the product high vs. low traffic, natural wear and tear and exposure to elements; it is recommended to increase longevity and performance of your surfacing to reseal the pad with PlayPour Polyurethane following the cleaning process above a minimum of every (2) years. Should additional maintenance recommendations be necessary contact the manufacturer or technical services.

1.12 TECHNICAL SERVICES

For technical assistance in California, contact Playgrounds Unlimited at 408-244-9848.

PART 2 – Products

- A. Playground surface shall consist of synthetic materials meeting the requirements of this specification. Playpour™ components shall be manufactured by ECORE International™ and the system installed by a certified installer.

2.01 BASE LAYER

- A. Playpour Primer: Polyurethane.
- B. SBR (Styrene Butadiene Rubber) Color: Black
- C. Playpour Poured In Place Base: Blend strand 100% recycled SBR (Styrene Butadiene Rubber) and Polyurethane to the proper ratios based on weight: (86% SBR rubber & 14% Polyurethane (as divided by total combined weight)) or (16+% when urethane divided by SBR weight).
- D. Base Thickness: May vary as determined by the fall height of the play equipment and as required meet ASTM F1292 requirements for critical fall height. Base Thickness for fall height as follows: 4'= 1.25", 5'=2.0", 6'=2.5", 7'=2.5", 8'=3.0", 9'=3.5", 10'=4", 11'=4.5",12'=5.0" ***ADD **.5" Top Coat** for Total System Thickness.

2.02 TOP LAYER

- A. Playpour Primer: Polyurethane.
- B. Playpour EPDM (Ethylene Propylene Diene Monomer)
- C. Colors: Terra Cotta Red, Primary Red, Gold, Beige, Yellow, Bright Green, Army Green, Hunter Green, Teal, Sky Blue, Royal Blue, Purple, Pearl, Eggshell, Brown, Light Gray, Dark Gray, Black. Custom colors combinations available (specify).
- D. Playpour Poured In Place Top: Blend of EPDM (Ethylene Propylene Diene Monomer) and Polyurethane. (82% rubber & 18% polyurethane (as divided by total combined weight)) or (22+% when urethane weight divided by EPDM weight).
- E. Nominal thickness of EPDM Top Layer 0.5", with a minimum 0.325" and a maximum 0.625".
- F. System Total Thickness: To be not less than the fall height of the play equipment which may vary and as required meet ASTM F1292 requirements for critical fall height. Total Thickness for fall height as follows: 4' Fall Height = Requires 1.75", 5'=2.5", 6'=3.0", 7'=3.0", 8'=3.5", 9'=4", 10'=4.5", 11'=5.0", 12'=5.5"

Specifier Note: There are (2) Industry Polyurethane Binders for Top Layer Application: “Standard” Aromatic polyurethane binder may yellow upon exposure to ultra violet rays and depending on the intensity may leave a yellow hue over the surface. This is an industry characteristic of this binder type. The hue is less noticeable overtime and after use. The “Premium” binder is an Aliphatic UV Stable polyurethane binder, which does not yellow from ultra violet exposure, which is available at a somewhat higher cost. The specifier should consider its use, particularly with the following surface colors: blue, teal, light gray, purple, eggshell, and pearl and/or design work combinations. Consult manufacturer for more information.

PART 3 – Execution

A. Comply with the instructions and recommendations of the surfacing manufacturer.

3.01 EXAMINATION

A. Verification of Site Conditions: Verify that substrate conditions are suitable for installation of the poured in place surfacing. Do not proceed with installation until unsuitable conditions are corrected.

B. Drainage: Proper drainage is critical to the longevity of the Playpour surfacing system. Inadequate drainage will cause premature breakdown of the poured system in affected areas; and void the warranty.

3.02 PREPARATION

A. Existing Substrate Preparation: Remove any loose or delaminated material that would be deleterious to application of the new surface. Fill cracks in existing concrete with cementitious patching compound.

B. Surface Preparation: Using a brush or short nap roller, apply primer to the substrate perimeter and any adjacent vertical barriers (such as playground equipment) at the rate of 300 ft²/gal.

3.03 INSTALLATION

A. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation and other relevant work, has been completed. Consider dust and traffic in adjacent work areas that may impact surfacing finish.

B. Base Layer Installation:

1. Using screeds and hand trowels, install the base layer at a consistent density of 29 pounds, 1 ounce per cubic foot to the specified thickness.
2. Allow base layer to cure for sufficient time so that indentations are not left in the base layer from applicator foot traffic or equipment.

3. Do not allow foot traffic or use of the base layer surface until it is sufficiently cured.
- C. Primer Application: Using a brush or short nap roller, apply primer to the base layer perimeter and any adjacent vertical barriers that will contact the surfacing system at the rate of 300 ft²/gal.
- D. Top Layer Installation:
1. Using a hand trowel, install top layer at a consistent density of 58 pounds, 9 ounces per cubic foot to a nominal thickness of 0.5".
 2. Allow top layer to cure for a minimum of 48 hours with Aromatic binder and up to 72 hours with Aliphatic binder, (dependent on weather conditions).
 3. At the end of the minimum curing period, verify that the surface is sufficiently dry and firm to allow foot traffic and use without damage to the surface.
 4. Do not allow foot traffic or use of the surface until it is sufficiently cured.

3.04 PROTECTION

- A. Protect the installed surface from damage resulting from subsequent construction activity on the site.

3.05 PRODUCT SUBSTITUTIONS

- A. Substitutions: No Substitutions Permitted. Our system is a proprietary blend of materials combined with more than 20 years of experience and specific installation techniques.