Pro-Techs Surfacing, LLC

WELCOME PACKAGE & EXHIBITS

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WELCOME

Congratulations on the installation of your new safety surface system, and thank you for choosing Pro-Techs Surfacing. We are committed to ensuring your surface delivers safety, performance, and long-term durability for years to come.

To support you in that goal, this booklet includes helpful information about maintenance, drainage, installation methods, and the unique characteristics of safety surfacing systems.

One of the most common questions we receive is:

“How often should I inspect my playground surface?”

The Frequency Inspection Forms, available here, are designed to help you answer that question. These forms evaluate your site based on usage patterns, environmental exposure, and other key factors. Once completed, you’ll be able to reference the scoring guide to determine a recommended inspection frequency tailored to your specific facility. However, Pro-Techs Surfacing requires a minimum inspection frequency of at least every 30 days to comply with the provisions of the warranty.

We hope this information supports you in properly maintaining your surface and extending its lifespan. Should you ever need assistance, including a warranty claim, please visit: https://pro-techssurfacing.com/warranty

– Your Pro-Techs Team

COMPACTED AGGREGATE SUBBASE INSTALLATION INSTRUCTIONS

Surrounding Concrete Requirements

Surrounding concrete should be flush to the finish grade and installed prior to the compacted aggregate base. Using a laser and/or string lines is highly recommended to ensure accuracy and consistency throughout the area.

Excavation

Excavate the area to the desired subgrade elevation. Typically, the excavation depth should be a minimum of 6 inches or more as needed to accommodate the compacted aggregate subbase and the final surfacing system.

Aggregate Selection

Use a well-graded aggregate blend with particle sizes ranging from 1 inch down to fines (dust) to achieve a minimum of 95% compaction.

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COMPACTED AGGREGATE SUBBASE INSTALLATION PROCESS

01

Layering:

Install the compacted aggregate base in lifts no thicker than 4 inches. Continue layering until the desired thickness is achieved, ensuring a minimum of 4 inches for the final thickness.

02

Chip Aggregate Adjustment for Turf Systems on Pad:

For turf systems that include a padding layer, the top 1" of the sub-base should consist of a maximum 3/8" chip aggregate. Refer to the Turf Sub-Base and Installation Instructions section (pg.14–15) for additional guidance on proper layering and preparation.

03

Slope or Crown:

Ensure the compacted aggregate base has a 1"–2" slope or a crown from the center to the outer edges. It should be installed to within +/- 0.5 inches of grade.

04

Compaction:

Use a gas-powered tamper to compact the aggregate base. Water the aggregate down during compaction to ensure it becomes hard for final grade or intermediate lifts.

Rolled Edges and Backfill

For aggregate edge conditions, excavate a trench approximately 2 - 3” deep around the perimeter. This creates space for the surfacing system to be poured below the top of subgrade. After the surface is fully cured, backfill the perimeter with surrounding soil or grass to create a flush, stable transition. For more information see our Rolled Edge Detail (pg.5).

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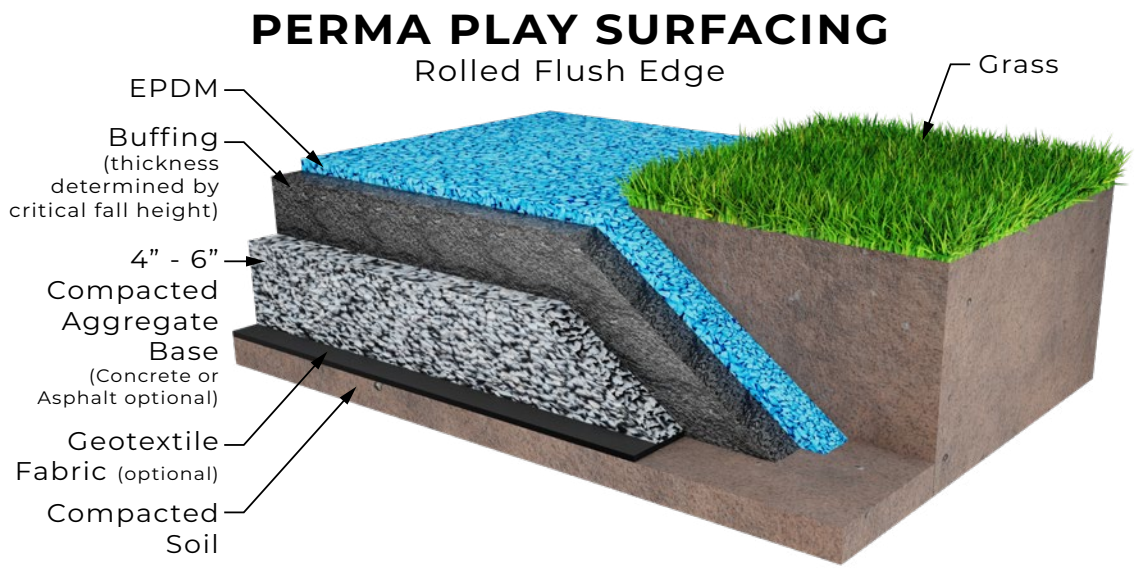
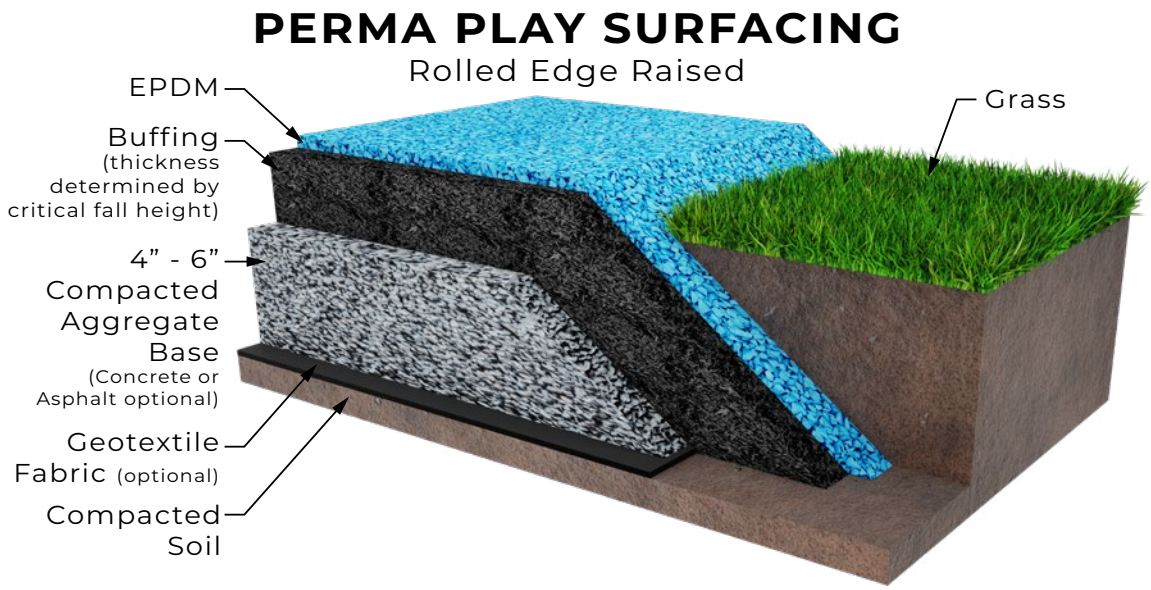
ROLLED EDGE INSTALLATION DETAIL

Purpose and Design

The rolled edge is designed to encapsulate the sub-base and be buried below the surrounding grade. This prevents the washout of aggregate fines, which can compromise the safety and stability of the surface.





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Key Specifications

- The rolled edge must follow Pro-Techs' specification as detailed in the provided drawings.
- It is crucial for the customer to backfill the area properly to cover the rolled edge and eliminate trip hazards.

POURED-IN-PLACE RUBBER SAFETY SURFACING MAINTENANCE

Per NRPA, CPSC, and ASTM playground guidelines, the owner/operator shall maintain and repair the impact attenuating surfacing making periodic inspections. To maintain warranty coverage, we require conducting written inspections at least once per month.

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INSPECTION AND CLEANING GUIDELINES

Playgrounds requiring more frequent inspections:

Check the surface and surrounding areas for granulation (loose rubber particles) and report any issues promptly, as outlined in your warranty. Areas needing more frequent inspection:

- vandalism
- high use
- older users
- contained aged surfacing
- environmental factors such as excessive sun
- high pH rain, salt content, or drainage issues

Keep area clean and free of particulates,

- Use leaf blower or hose surface off
- No power washing

Use non-solvent cleaners for spot cleaning,

- Diluted Dawn dishwashing liquid or Simple Green
- Check the surface and surrounding areas for granulation (loose rubber particles) and report any issues promptly, as outlined in your warranty.

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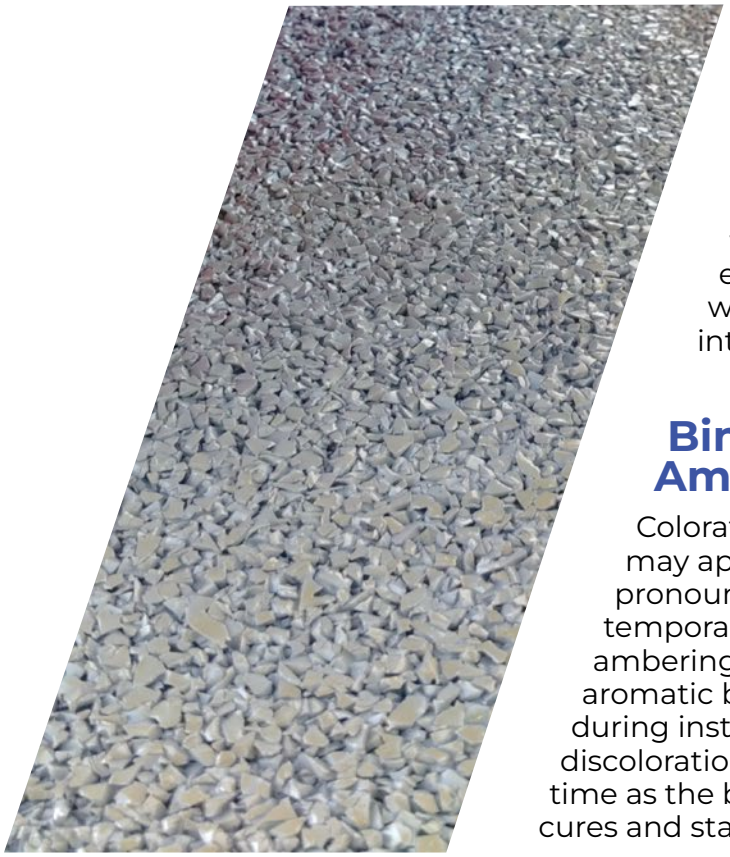
CAUSES OF COLOR VARIATIONS



Did You Know?

UV exposure may temporarily alter coloration, but it doesn't impact functionality. Natural weathering and exposure to sunlight will return it to the intended appearance.

Binder Ambering

Coloration mismatches may appear more pronounced temporarily due to the ambering effect of the aromatic binder used during installation. This discoloration fades over time as the binder cures and stabilizes.

Environmental Factors

Over time, exposure to sunlight, water, and other environmental conditions can amplify coloration inconsistencies. These factors may cause slight fading or shifts in color, but they do not compromise the material's durability or safety.

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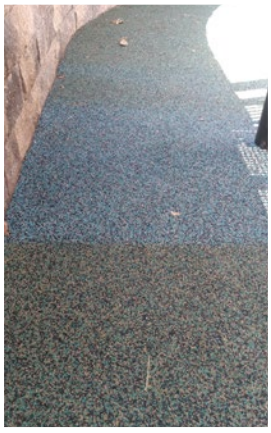
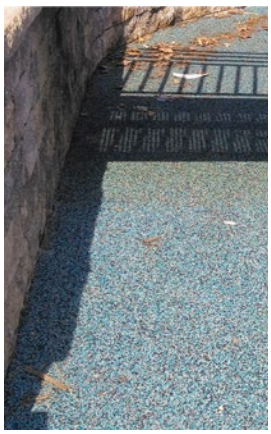
AROMATIC BINDER AMBERING

Occurs during the chemical curing process while binder exposed to ultraviolet rays.

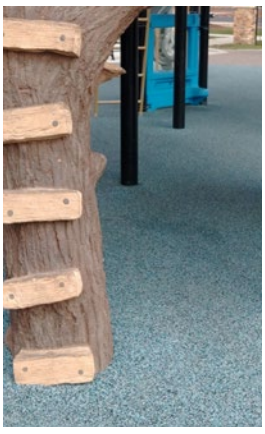


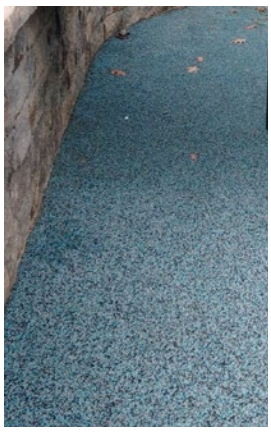
Not a defect, workmanship, or warranty issue.
Can be uneven depending on:

- Physical shading around
- playground
- Shadows from ramps, decks,
- climbing walls/equipment
- Periods of sun versus overcast on pour days



Resolves overtime from foot traffic by children in combination with sun/UV exposure.





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ALIPHATIC MICROFOAMING

Occurs during the chemical curing process while binder exposed to excessive moisture or water either from below in the base layer or above as precipitation.

- Caused by mixing or pouring in unfavorable conditions
- Cannot be corrected, rubber must be removed and replaced

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DRAINAGE ISSUES

The Role of Drainage in Surface Longevity

Proper and active drainage is essential to prevent water retention within the layers of a surface system, particularly during freeze-thaw cycles. When water is not effectively drained, it can lead to significant issues that compromise the integrity and performance of the surface.

"Effective drainage is the foundation of a long-lasting surface."

Understanding Delamination

One of the most serious consequences of poor drainage is delamination—the separation of the two layers in poured-in-place rubber. This condition is caused by water trapped and freezing between the layers, cannot be repaired, and often requires the removal and replacement of the entire rubber surface. In most cases, the base layer may also need to be replaced due to deterioration.

Proper Drainage Matters

To preserve the durability and functionality of your safety surface, ensuring an effective drainage system is critical. Proper drainage not only prevents costly repairs but also maintains the surface's ability to meet safety standards.

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CAUSES OF DRAINAGE ISSUES

Sediment Buildup and Degraded Safety

Brown water carrying sediments through the base layer can cause deposits to accumulate between the rubber strands. Over time, this sediment buildup can deteriorate the surface's impact attenuation properties, reducing its ability to provide adequate safety.

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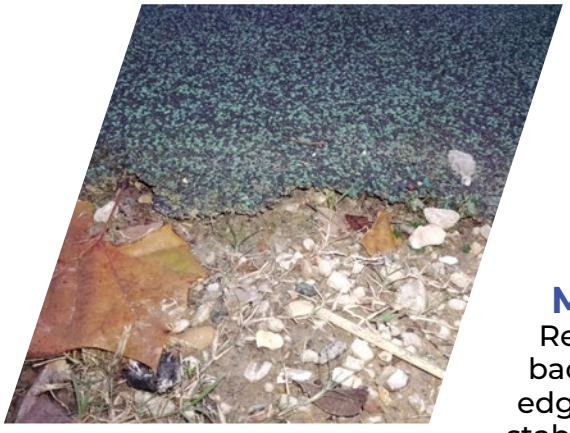
SURFACE MAINTENANCE AND PREVENTION OF SUBBASE EROSION



Customer Maintenance Responsibilities

To ensure the longevity and safety of the surface, customers must:

Maintain Backfill

Regularly inspect the backfill to ensure the rolled edge remains buried and stable.

Prevent Erosion

Address erosion of the surrounding grade to avoid:

- Exposure of the rolled edge.
- Washout of aggregate fines.
- Development of uneven surfaces and trip hazards.

Why Maintenance Matters

Failure to maintain the backfill and surrounding grade can lead to:

- A compromised surface that is unsafe for users.
- Increased repair costs due to surface degradation.

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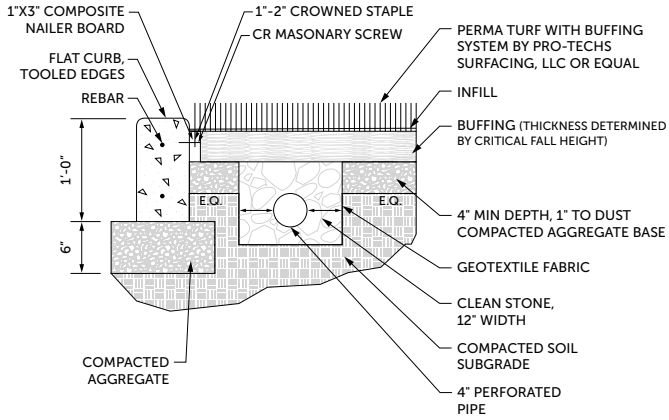
TURF SUB-BASE

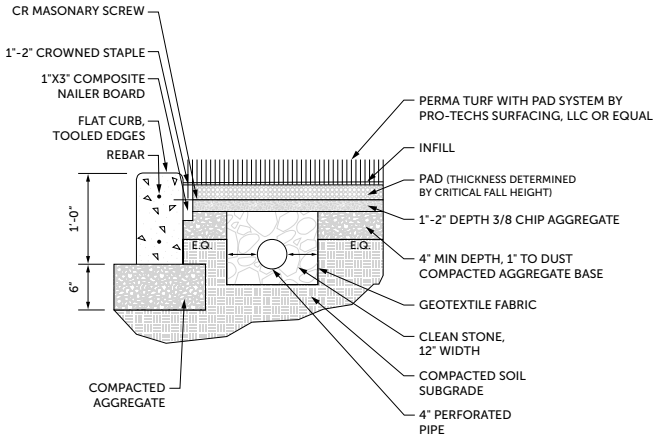
Ensuring Subbase Integrity

Achieving a durable and smooth turf surface starts with ensuring the integrity and uniformity of the sub-base. Whether installed over padding or directly on aggregate, a layer of 3/8 chip aggregate materials between the compacted sub-base and the upper layers of padding or turf is essential.

PERMA TURF SURFACING ON BUFFING - DRAINAGE
(ON BUFFING - VARIOUS CRITICAL FALL HEIGHT)



PERMA TURF SURFACING ON PAD - DRAINAGE
(ON PAD - VARIOUS CRITICAL FALL HEIGHT)



Challenges with Standard Aggregate

Using standard aggregate with larger stones can lead to:

- Uneven padding during installation.
- Lumps in the turf surface, caused by aggregate shifting when aligning turf seams. These irregularities compromise both the aesthetic and functional quality of the turf, leading to potential customer dissatisfaction.

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PERMA TURF RECOMMENDED SUB-BASE CONSTRUCTION FOR TURF ON AGGREGATE

Application of Chip Aggregate

To avoid surface irregularities, apply **1" - 2" of 3/8-inch chip aggregate**. This layer ensures smooth and consistent installation. It prevents the development of lumps and uneven surfaces.

Step-by-Step Process

Layered Sub-Base Construction:

Build the sub-base in lifts (layers), compacting each layer slightly below the nailer board level. Ensure each layer is tightly tamped for stability.

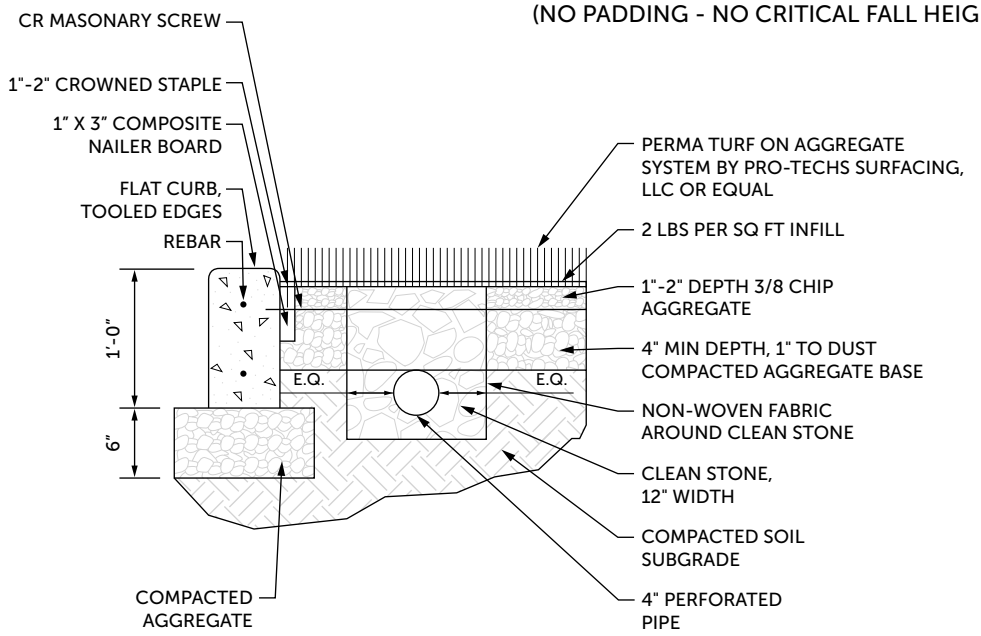
Add Chip Aggregate Layer:

After constructing the sub-base, add the chip aggregate layer before final compaction.

Final Compaction:

Compact the entire sub-base to create a level and secure foundation for padding or turf on aggregate installation.

PERMA TURF SURFACING ON AGGREGATE - DRAINAGE
(NO PADDING - NO CRITICAL FALL HEIGHT)



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PERMA TURF WEEKLY/MONTHLY MAINTENANCE

Routine Sweeping

Regular sweeping discourages weeds and moss by removing detritus from birds, wind, or muddy shoes.

Use a power broom for best results, sweeping in opposite directions to avoid pile lean.

Turf-Friendly Tools

Avoid using tools or cleaning agents that might damage the turf (e.g., acetone or alcohol-based solvents).

For cleaning concerns, consult your Pro-Techs representative.

Infill Maintenance

Heavily used areas may require additional infill to maintain a depth of 3/8 inch.

Use a fertilizer spreader to distribute infill and a power broom to work it into the turf layer evenly.

Foreign Object Removal

Remove all foreign objects (e.g., leaves, twigs, paper, gum, tape) by hand or with a leaf blower to prevent abrasion and contamination of the fibers and fill.

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SEMI-ANNUAL AND AS-NEEDED MAINTENANCE

Visual Inspections

Inspect seams and edges, especially in high-traffic areas, to ensure they remain in good condition.

If issues are detected, contact your Pro-Techs representative for repairs.

As-Needed Repairs and Upkeep

Repair any damage promptly to prevent further deterioration.

Apply a 10:1 water and fabric softener mix using a sprayer to prevent static buildup.

Snow Removal Tips

Use a power broom for snow removal.

Avoid hand shovels with metal blades, as they can damage the turf.

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BONDED RUBBER MULCH COLORATION

Coloration Inconsistencies

Coloration inconsistencies can occur in rubber products used in single-layer systems. These variations are purely cosmetic and do not affect the impact attenuation properties of the material. They are not considered a defect or a warranty issue.

Irreversible Nature

Unfortunately, these color mismatches cannot be corrected. If the appearance is not acceptable, the only solution is to remove and replace the affected rubber surface.

Manufacturing Causes

Inconsistencies in coloration are often caused during the manufacturing process due to a lack of consistent pigmentation. Additionally, using raw materials with prior chemical exposure, instead of virgin rubber tailings, can contribute to these variations.

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