Hot Weather Installations of Playground Safety Surfaces

We would like to provide some clarification on proper weather requirements to install safety surfaces during periods of excessive heat. This document outlines key factors that should be considered when planning installations during these conditions. This is not an exhaustive listing—site-specific environmental conditions may also require special attention. These may include direct sunlight exposure, surface temperatures, and ambient temperatures (including heat index), and humidity. Proper drainage remains critical in all conditions and continues to be a key factor in the longevity and performance of all surfaces.

Why Temperature Matters

Just like asphalt or concrete, our safety surfacing systems—including poured-in-place rubber and synthetic turf—require specific temperature ranges to install properly. The manufacturers of the base, aromatic, and aliphatic binders we currently use set the minimum and maximum temperatures at 50F and 95F, respectively. When it's too hot, these materials can behave differently. When excessive heat is present, these materials can behave unpredictably, leading to:

- Poor surface strength or bonding
- Premature wear and reduced lifespan
- Visual imperfections like bubbling or seam gaps
- Costly return trips or repairs that could otherwise be avoided

These issues are not just cosmetic—they can compromise the overall safety, performance, and integrity of your investment.

Poured-in-Place Rubber

When outdoor temperatures rise above 95°F, we begin to see the following issues with poured rubber systems:

- Over-thinned binder: The binding agent (base, aromatic, and/or aliphatic binders) becomes too fluid, draining downward into the base layer. This leaves less binder in the top EPDM layer, weakening the surface durability and shortening its life.
- Too-fast curing: Hot temperatures with high humidity cause the rubber mix to cure too quickly, reducing the time needed to spread and finish the surface properly.
- Surface bubbling or delamination: High heat and high humidity environments can trap gases between layers or cause improper adhesion between layers.
- Binder skinning: The surface can harden prematurely, locking in imperfections.

Once these issues occur, they cannot be reversed without cutting and re-pouring areas—which increases your costs and affects the visual consistency of the finished product.

Synthetic Turf

Synthetic turf systems also suffer in excessive heat:

- Turf expansion: Turf expands during the heat, and if it's cut during expansion, it may shrink and pull away from seams or poles once temperatures cool.
- Turf wrinkling – While some wrinkling is a known characteristic of synthetic turf installations, excessive heat can cause this to be more pronounced.
- Adhesive failure: Turf adhesives may not bond properly on extremely hot or sun-exposed surfaces.
- Safety risks: Surface temperatures can reach 140°F or more, putting our crews and your project timeline at risk.

Our Commitment to You

We take great pride in the quality of our work and the durability of our surfaces. That's why we may advise against installation during extreme heat. In some cases, we may offer alternate options such as:

- Delaying installation until conditions improve
- Proceeding with written customer approval and waiver, acknowledging associated risks

These recommendations are not made lightly. They are based on manufacturer specifications, years of field experience, and our goal of protecting both your project and our reputation.

As always, Pro-Techs Surfacing is committed to working with its customers to resolve any installation and scheduling concerns and we are sharing this information to keep you informed about the associated risks of installation in hotter temperatures. Please feel free to contact us to discuss any issues and how we can best address them proactively.