

Poured-In-Place Systems

At first glance, poured-in-place systems appear to be a “commodity.” Little seems to differentiate one system from the next. In support of this view, the rubber and urethane that make up competing systems are sometimes sourced from the same suppliers. In other instances, the rubber and urethane visually appear the same, though there might be a quality difference that is revealed over time. Unfortunately, other than thoroughly investigating a poured-in-place company’s previous work – which is probably not practical – or closely supervising each step of the installation process – which is very time consuming – it is a challenge to differentiate companies. It all looks the same.

If this were the end of our analysis, the purchasing conclusion might be to buy low price regardless. However, those familiar with poured-in-place realize there is much more to consider than price alone.

Ask these critical questions before purchasing a poured-in-place system.

- Are high quality material components being used?
- Is the application rate ample for long-term durability?
- Is the installation crew committed to meeting the specification and following sound application guidelines?
- Is the crew capable of providing an aesthetically pleasing product?

The answers to these questions are critical, and they will make the difference between a system that starts to prematurely break down shortly after installation versus a system which remains strong for many, many years.

On-Site Manufacturing & Construction

The poured-in-place installation process is unique because manufacturing actually takes place on-site. Typically, on-site field work involves assembling finished construction materials or manufactured parts.

The poured-in-place process is different in that it is mixed, applied and cured in the field. This on-site manufacturing process makes the installation team critical to the successful completion of the job.



Here's an overview of the responsibilities that fall on the installation crew:

- *Evaluation of On-Site Conditions ...*
Including base construction, edge details and weather conditions (temperature, humidity, precipitation).
- *Proper Material Handling ...*
Keeping materials dry; protecting the site during the installation process; efficiently staging the materials and operating the mixing station.
- *Accurate Formulation and Mixing of Batches ...*
Ensuring the ratio of rubber to urethane matches the specification; mixing each batch consistently; reporting and adjusting to atypical material characteristics.

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- *Professional Application ...*
application of the basemat and top surface to the specified density, weight and thickness; working “passes” into adjacent “passes” so a uniform top surface results; properly staffing the job so daily production is maximized and cold joints (work stoppage from day-to-day) are minimized; thorough troweling of new day’s material to previous day’s work into a tight cold joint.

The knowledge, workmanship and productivity of the installation crew are of paramount importance to the completed systems.

Application Rates

Most poured-in-place companies have similar ratios of urethane to rubber in the mix. However, the more important factor is the rate of application at which the material is applied. The following summarizes the point:

- The industry range of urethane to rubber ratio in the top surface is .19 to 1 (16% urethane to 84% rubber) to .25 to 1 (20% urethane to 80% rubber).
- Most poured-in-place companies fall right about in the middle .2195 to 1 (18% urethane to 82% rubber).
- Poured-in-place companies readily provide their mixing ratio but often leave out the more important data of how much of the mix they apply per square foot.
- Data pertaining to application rate is better expressed in pounds per square foot than thickness because density is critical.
- For example, a densely compacted $\frac{7}{16}$ " top surface layer that contains 2.44 lbs. of material (rubber and urethane combined) per square foot is far superior than a $\frac{1}{2}$ " layer that contains 2.00 lbs. of material

per square foot that has not been properly compressed by the applicator.

- A tight, well-compacted, dense top surface is required for long-term durability.

Recommendations to the Decision Maker

When a poured-in-place installation is complete, only the very top of the surface is exposed, allowing evaluation of the work aesthetically but making evaluation of the system’s construction impossible. The system’s construction is critical to its longevity.

Steps can be taken prior to the purchase decision to ensure a well constructed system is chosen and that the purchaser is protected:

- *Workmanship ...*
Require a minimal experience level of the company and on-site installation crew. This requirement can be expressed by a minimum number of square feet installed, years in the business and/or per day production.
- *Application Rate ...*
Be certain the company communicates the weight of the material they are applying per square foot in the top surface. This is critical. Often decision makers are comparing a system that, in the top surface, has less than 75% of the weight of another system. Over the life of the material this is a huge factor. Reserve the right to remove core samples if there is suspicion of not meeting minimum requirements.
- *Warranty/Company Reputation ...*
Require a written warranty from the company. Evaluate it in terms of content and length of time. Consider the company in relationship

to the warranty. How long have they been in the industry? What is their reputation? Following are key factors from Surface America for which you should be gathering from any prospective surfacing company.

Surface America Highlights

- In business since 1993.
- Management team has a combined experience in recreational surfacing of more than 50 years.
- AAA bond rating and outstanding corporate financials.
- Over 15 million square feet of poured-in-place installed.
- Nationwide network of professional, experienced installers.
- Industry-leading 2.44 pounds of material per square foot in the top surface.
- Five-year warranty on every installation.



Surface America’s PlayBound™ is IPEMA certified. To verify product certification, visit www.ipema.org.

Obtain LEED® credits by using Surface America products.

By demanding more of each poured-in-place company, the likelihood that the best value is chosen increases significantly. Know what you are purchasing before it is installed. It will ensure many years of enjoyment and performance from your surfacing system.

