

BY JENNIFER FRAKES
PHOTOS COURTESY OF POLYCOAT

The Hollywood Bowl is one of the most iconic concert venues in the entertainment capital of the world: Hollywood, California. It is the home of the Los Angeles Philharmonic, and it hosts numerous classical, popular, and Broadway musical productions throughout its summer season. It has the glamorous feel of old Hollywood – elegance and history mixed with aesthetically pleasing modern conveniences. As part of an overall facelift of various areas of the largest natural amphitheater in the United States, the Los Angeles County Department of Public Works called upon California Restoration & Waterproofing to recoat a heavily used parking deck. Read on to discover how the California Restoration & Waterproofing crew, along with Polycoat Products, rose to the challenge and made this coating job a show-stopper.

SETTING THE STAGE

Although the 7,000-square-foot (650.3m²) parking deck may not be considered a large job, it is certainly a high-profile one. The deck is located above newly refurbished restrooms and is used as a

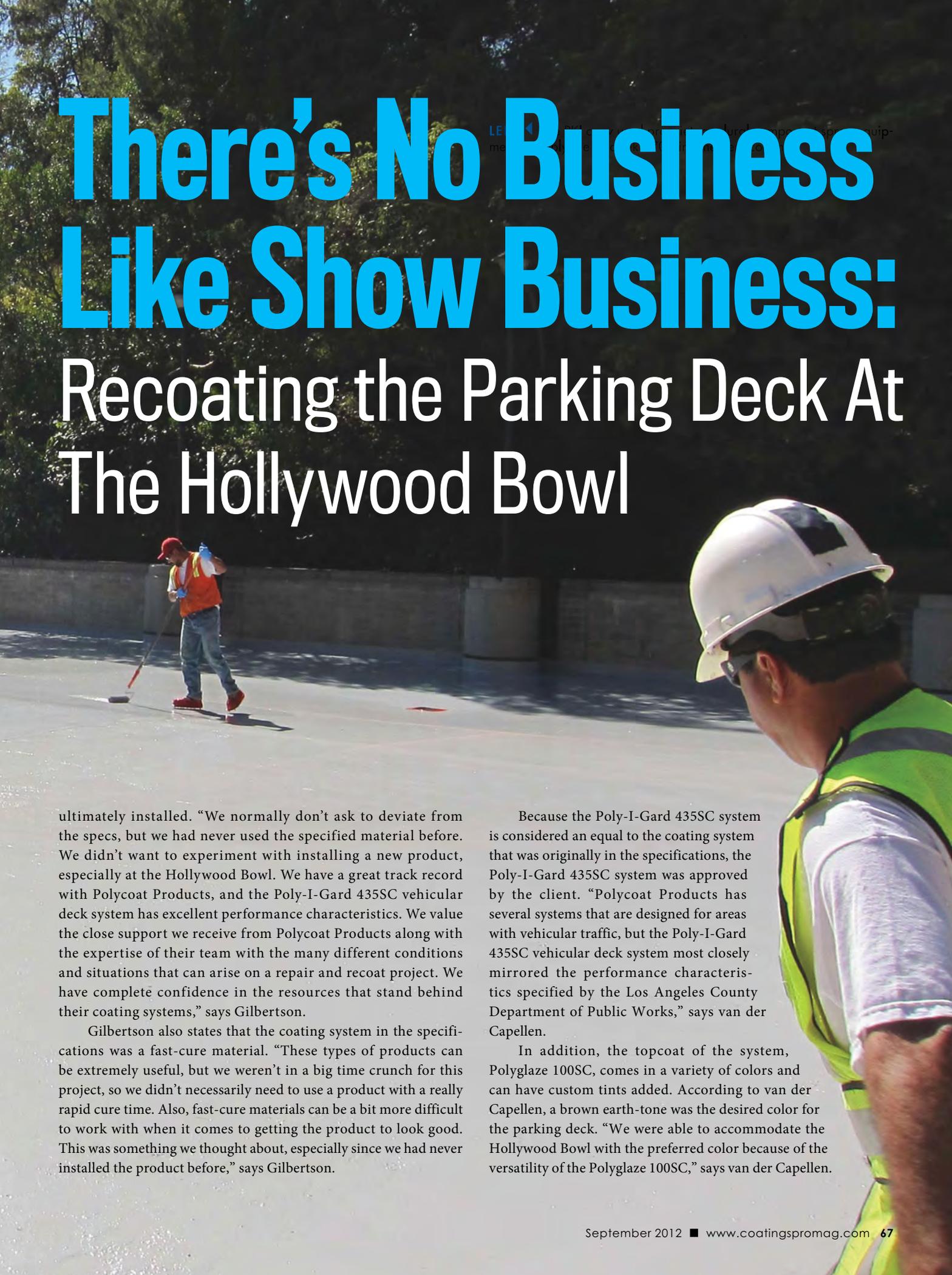
V.I.P. parking area for the Hollywood Bowl. California Restoration & Waterproofing was tasked with removing the existing coating system, repairing the concrete, and applying a new coating system on the deck. “There was an old urethane coating on the concrete slab, and the exposed concrete exhibited a lot of cracking. It was pretty scarred up concrete,” says Michael Gilbertson, vice president of California Restoration & Waterproofing.

Adriaan van der Capellen, Southern California sales manager for Polycoat Products, agrees. “The deck had been weathered and abused. This particular parking deck is also used as a catering staging area for certain events at the Hollywood Bowl, so metal support posts for tents are dragged around up there. The deck also sees quite a bit of heavy equipment traffic.”

With the multiple uses of the parking deck, as well as in keeping with the look and feel of the Hollywood Bowl, there were many considerations when deciding on a coating system – functionality, durability, and aesthetics. According to Gilbertson, the specifications called for another coating system to be used on the parking deck, not the Polycoat Products system that was

There's No Business Like Show Business:

Recoating the Parking Deck At The Hollywood Bowl



ultimately installed. “We normally don’t ask to deviate from the specs, but we had never used the specified material before. We didn’t want to experiment with installing a new product, especially at the Hollywood Bowl. We have a great track record with Polycoat Products, and the Poly-I-Gard 435SC vehicular deck system has excellent performance characteristics. We value the close support we receive from Polycoat Products along with the expertise of their team with the many different conditions and situations that can arise on a repair and recoat project. We have complete confidence in the resources that stand behind their coating systems,” says Gilbertson.

Gilbertson also states that the coating system in the specifications was a fast-cure material. “These types of products can be extremely useful, but we weren’t in a big time crunch for this project, so we didn’t necessarily need to use a product with a really rapid cure time. Also, fast-cure materials can be a bit more difficult to work with when it comes to getting the product to look good. This was something we thought about, especially since we had never installed the product before,” says Gilbertson.

Because the Poly-I-Gard 435SC system is considered an equal to the coating system that was originally in the specifications, the Poly-I-Gard 435SC system was approved by the client. “Polycoat Products has several systems that are designed for areas with vehicular traffic, but the Poly-I-Gard 435SC vehicular deck system most closely mirrored the performance characteristics specified by the Los Angeles County Department of Public Works,” says van der Capellen.

In addition, the topcoat of the system, Polyglaze 100SC, comes in a variety of colors and can have custom tints added. According to van der Capellen, a brown earth-tone was the desired color for the parking deck. “We were able to accommodate the Hollywood Bowl with the preferred color because of the versatility of the Polyglaze 100SC,” says van der Capellen.



The largest natural amphitheater in America, people often think that the “bowl” in the Hollywood Bowl is the white structure over the stage. Actually that is the amphitheater’s shell. The “Bowl” refers to the concave hillside into which the amphitheater is carved.



JOB AT A GLANCE

OPENING ACT

As with all coating jobs, surface preparation is essential to ensuring the quality and performance of the coating system. California Restoration & Waterproofing enlisted Blason Industries, specialists in shot blasting and concrete surface preparation. Using Blastrac equipment, the Blason Industries crew removed the existing coating from the deck. All coating residue was eliminated from the area, and then the deck was shot-blasted using a Blastrac shot blaster. Once the shot, or beads, were cleaned up, the cracks in the concrete were repaired. The cracks were routed, primed, and caulked with a two-part, gun-grade sealant. According to Gilbertson, all control joints were recaulked. Any excess caulking was removed, and the sealant was tooled. The deck was ready for the application of Polyprime 2180SC.

Although the surface preparation was relatively straightforward, there was a surprise discovered during the process – a buried membrane system. Gilbertson states that this discovery changed the approach to the job. “We needed to address the potential for trapping moisture in the slab because of the buried membrane. Trapped moisture can cause the coating system to delaminate. We decided that applying two coats of Polyprime 2180SC would mitigate the potential risk,” says Gilbertson.

Polyprime 2180SC is a two-component, liquid-applied, epoxy-polyamine primer that, according to van der Capellen, has unique penetrating characteristics. “It seals the concrete substrate and has excellent adhesion,” says van der Capellen.

The five-man crew from California Restoration & Waterproofing measured out the material and sectioned the deck into grids to ensure proper coverage. They then used rollers to apply the two coats of Polyprime 2180SC at a thickness of approximately 6 mils (152.4 microns) in thicknesses of 3 mils (76.2 microns) per coat. Polyprime 2180SC is specifically designed for use in Southern California. The properties of the coating comply with the South Coast Air Quality Management District (SCAQMD) air quality standards. The SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. These areas are considered to be the smoggiest region of the United States. According to the SCAQMD Website, the organization is committed to protecting the health of residents while remaining sensitive to businesses. “All of our coatings that end in ‘SC’ are specially designed for use in Southern California. They are all in compliance with the SCAQMD standards,” says Bob Parsons of Polycoat Products.

CENTER STAGE

With the deck primed, the crew was ready for the main event: applying the basecoat and the rest of the coating system to the deck. PC-235SC is a single component, moisture-cured, aromatic

LEFT ◀ The Bowl’s parking deck is multi-functional, hosting catered parties and events, as well as parking. “There was an old urethane coating on the concrete slab, and the exposed concrete exhibited a lot of cracking,” says Michael Gilbertson, vice president of California Restoration & Waterproofing.

PROJECT:

Remove the existing urethane coating, repair the concrete substrate, and recoat the parking deck of the iconic Hollywood Bowl concert venue

COATINGS CONTRACTOR:

California Restoration & Waterproofing
1513 Arrow Highway, Suite C
La Verne, CA 91750
(909) 595-1234

SIZE OF CONTRACTOR:

Just over 20 employees; a 5-man crew worked this project

PRIME CLIENT:

Los Angeles County Department of Public Works

SUBSTRATE:

Concrete

SIZE OF JOB:

7,000 sq. ft. (650.3m²)

DURATION:

2 weeks

UNUSUAL FACTORS/CHALLENGES:

- The Poly-I-Gard 435SC vehicular deck system was not the coating system on the original specifications
- The Los Angeles County Department of Public Works wanted a specific color for the topcoat of the parking deck, and unlike many other products, the Polyglaze 100SC is available in custom colors
- During the surface preparation process, the existence of a buried membrane system was discovered; the California Restoration & Waterproofing crew decided to double prime the substrate to mitigate the potential risk of trapped moisture
- The two-week job occurred during unusually cold and dry weather in Los Angeles

MATERIALS/PROCESS:

- The existing urethane coating was removed, the concrete substrate was shot-blasted, and all cracks in the concrete were repaired
- Two coats of Polyprime 2180SC were applied at a thickness of 3 mils (76.2 microns) per coat
- PC-235SC basecoat was applied at a thickness of 19 mils (482.6 microns)
- Heavy traffic areas were laid out, and an additional coat of PC-235SC was applied at a thickness of 11 mils (279.4 microns)
- Monterey sand #1/20 mesh was broadcast over the high traffic areas
- Poly-I-Gard 246SC was applied to the entire deck at a thickness of 11 mils (279.4 microns)
- A second broadcast of sand was evenly applied to the entire deck area
- Two coats of Polyglaze 100SC were applied to the parking deck at a thickness of 12 mils (304.8 microns) per coat

SAFETY CONSIDERATIONS:

- A safety plan was created for the job, and the crew held weekly safety meetings
- All appropriate PPE, such as goggles, hardhats, boots, gloves, and respirators, were worn by the crew when necessary



ABOVE ▲ In order to remove the failed coating, California Restoration & Waterproofing subcontracted with Blason Industries. The Blason crew used a Blastrac shot blaster among other equipment (inset) to remove the existing coating from the deck.

polyurethane elastomeric waterproofing base membrane. Using notched squeegees and rollers, the crew applied the PC-235SC at a thickness of approximately 19 mils (482.6 microns). The crew then misted the deck with water to activate the basecoat.

Once the first coat had cured, the crew mapped out the high traffic areas and applied a second coat of the PC-235SC to those sections at a thickness of approximately 11 mils (279.4 microns). The crew immediately broadcast Monterey sand #1/20 mesh over the high traffic areas of the deck to help create a slip-resistant finish.



Once the PC-235SC with the aggregate had cured, the excess sand was removed. Using flat squeegees, Poly-I-Gard 246SC was applied to the entire deck at a thickness of approximately 11 mils (279.4 microns). Poly-I-Gard 246SC is a single component, moisture-cured, aromatic polyurethane waterproof membrane. As soon as the Poly-I-Gard 246SC was on the deck, a second broadcast aggregate layer was evenly applied to all areas. After the Poly-I-Gard 246SC had cured, the excess aggregate was removed.

At this point in the process, it was time for the crew to install the Polyglaze 100SC topcoat on the deck. Polyglaze 100SC is a polyester, aliphatic, single-component, moisture-cured, polyurethane topcoat for waterproofing membrane systems. Prior to application, the crew mixed in the desired color pack to the material. Then, using squeegees and rollers, the topcoat was applied at a thickness of approximately 12 mils (304.8 microns). According to van der Capellen, a second coat of Polyglaze 100SC was applied to the deck in order to offer the eight-year warranty that the Los Angeles County Department of Public Works requested. "With the second coat of Polyglaze 100SC, the deck has an additional 12 mils (304.8 microns) of protective coating," says van der Capellen.

Van der Capellen mentions another interesting fact about

LEFT ◀ After the Blason crew finished shot blasting the deck, any cracks in the concrete were routed, primed and caulked.



ABOVE ▲ The crew used a two-part, gun-grade sealant to prime and caulk cracks and control joints. According to Gilbertson, any excess caulking was removed, and the sealant was tooled.

the two-week-long coating job. “The project took place during January and February 2012, when the Los Angeles area saw unusually low temperatures and very low relative humidity,” says van der Capellen.

“Since the Poly-I-Gard 435SC is a moisture-cured coating system, the low temperatures and low humidity meant that the coating would take longer than we wanted to cure (conditions for optimal cure times are 70+ degrees Fahrenheit/21 degrees Celsius with 50 to 60 percent relative humidity). Even though the job wasn’t on a tight schedule, we didn’t want the coating system sitting uncured for too long.”

To combat this situation, Gilbertson and his crew added moisture-curing enhancements to both the basecoat and topcoats. PC-50 was added to the PC-235SC and Polyglaze Hardener was added to the Poly-I-Gard 246SC and the Polyglaze

BELOW ▼ Working in sections, the California Restoration & Waterproofing crew used rollers to apply two coats of Polyprime 2180SC at a thickness of approximately 6 mils (152.4 microns) in thicknesses of 3 mils (76.2 microns) per coat.



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ABOVE ▲ After they mapped out the high traffic areas, the crew applied a second coat of the PC-235SC to those sections at a thickness of approximately 11 mils (279.4 microns).

100SC. With these curing accelerants, the cure times were back on track, and the crew didn't waste time standing around in the unseasonably chilly weather.

SPOTLIGHT ON SAFETY

When discussing the Hollywood Bowl parking deck project, Gilbertson is quick to point out that just as with every California Restoration & Waterproofing job, safety is the top priority. "We have a safety plan for every job, and we have safety meetings once a week. The superintendent who was on this job is excellent with safety requirements and regulations, so we knew that any issues would be dealt with right away," says Gilbertson.

In addition, each crew member wore the appropriate personal protective equipment (PPE) for various stages of the job, including goggles, gloves, hardhats, boots, and respirators.

BELOW ▼ The crew used squeegees and rollers to apply the Polyglaze 100SC topcoat in two 12 mil (304.8 microns) thick topcoats.



ABOVE ▲ Immediately following the application of the second coat of PC-235SC, the crew broadcast Monterey sand #1/20 mesh into the wet coating to create a slip-resistant finish

A STANDING OVATION

The parking deck coating job at the Hollywood Bowl illustrates the importance of the coating manufacturer and the coating contractor working together to optimize the ease of application and the performance of a coating system. "We were confident that with the Poly-I-Gard 435SC system, we wouldn't be compromising on quality and performance. We have a long-standing relationship with Adriaan [van der Capellen] and trust in his technical expertise and the Polycoat products. And that trust was especially important while working at a high-profile location like the Hollywood Bowl," says Gilbertson. **CP**

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THE SCIENCE BEHIND THE MAGIC OF HOLLYWOOD

By Jen Kramer

A world-famous attraction, the Hollywood Bowl has hosted performances ranging from Frank Sinatra to Bjork. Exposure to Southern California's extreme sun, dry winds, as well as heavy vehicular and equipment usage had turned the show place's parking deck into a potential show stopper.

As noted in the accompanying article, in addition to a heavy stream of VIP parking, depending on the event, the deck is also the site of catered parties. Through the years, heavy tent poles and table legs have added to the damage.

Not surprisingly, the existing coating system failed, exposing the concrete substrate to damage and threatening the newly refurbished restrooms located directly underneath the parking deck.

The Los Angeles County Department of Public Works turned to Polycoat Products and their coatings technology for the solution to their Hollywood Bowl parking deck problem.

Bob Parsons, Polycoat's marketing manager, says that the Poly-I-Gard system was chosen because it not only is ideal for vehicular traffic and general use, "but it is also a heavy duty coating suitable for a wide range of applications—from walkways to helicopter pads." Considering the caliber of entertainers who appear at the Bowl, it isn't far-fetched to think about a helicopter landing on the parking deck.

So what exactly was the system that convinced The Los Angeles County Department of Public Works to deviate from the original specification? Just what coating is strong enough to withstand heavy traffic and Southern California's climate, and yet also meet Southern California's stringent air quality emission standards?

The Hollywood Bowl is located in a political jurisdiction known as the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. According to the SCAQMD, their jurisdiction comprises 10,743 square miles (27,824.2 square kilometers) and is home to over 16.8 million people—about half the population of the state of California. In fact, it is the second most populated urban area in the United States and also one of the smoggiest. For this reason, SCAQMD has developed some of the most stringent air pollution regulations in the nation—including the amount of volatile organic compounds (VOCs) that are permitted to be contained in the coatings applied within the district.



The Polycoat system that was ultimately chosen was designed to meet SCAQMD regulations. At the Bowl, this system application began with a 6 mil (152.4 micron) layer of Polyprime 2180SC, a two-component, epoxy-polyamine primer. The Polyprime 2180SC has been specifically formulated for use in Southern California to be in compliance with SCAQMD requirements. According to the product data sheet (PDS), the "regular" formulation of Polyprime 280 (250 VOC) contains 1.17 lb/gal (140gm/liter) volatile organic compounds, while Polyprime 2180SC (100 VOC) contains 0.83 lb/gal (100gm/liter).

The intermediate coat, Poly-I-Gard 246SC (100 VOC), was applied at 11 mils (279.4 microns). The single-component, aromatic, polyurethane waterproofing membrane contains 0.74 lb/gal (89 gm/liter) VOC compared to the non-SCAQMD formulation, Poly-I-Gard 246 (250 VOC). According to the PDS, while it is perfectly acceptable for use outside of SCAQMD, Poly-I-Gard 246 (250 VOC) contains 2.03 lb/gal (243 gm/liter) volatile organic compounds.

Finally, the system was topcoated with 24 mils (609.6 microns) of Polyglaze 100SC, a polyester, aliphatic, single-component, moisture-cured polyurethane topcoat for waterproofing membrane systems. The PDS again shows a marked difference between the Polyglaze 100SC Pigmented (100 VOC), which is formulated for use in the SCAQMD and Polyglaze 100C Pigmented (250 VOC). The 100SC contains 0.82 lb/gal (98 gm/liter) VOCs, while the 100C contains 2.09 lb/gal (250 gm/liter).

And thus, as the saying goes in Hollywood, a star was born. Or in this case, a parking deck for the stars was reborn—protected from the elements and from wear by a coating system that is both environmentally safe and incredibly strong. The Hollywood Bowl parking deck is protected by a coating system that, like Hollywood itself, relies on science for the magic. **CP**