



# concrete Publisher's Letter DECOR

#### November/December 2019 Volume 19 · Issue No. 8

Publisher: Bent O. Mikkelsen

bent@protradepubinc.com (877) 935-8906 x201

Editor: Stacey Enesey Klemenc

stacey@protradepubinc.com

(757) 427-6355

Creative Director: Bill Simpson

bill@protradepubinc.com (877) 935-8906 x203

Writers: Dr. Kaveh Afshinnia

Jennifer Faller Jon Kopp Joe Maty K. Schipper

Business Manager: Sheri Mikkelsen

sheri@protradepubinc.com

(877) 935-8906 x205

Circulation: Meg Webb

meg@protradepubinc.com (877) 935-8906 x200

Sales: Bent O. Mikkelsen

bent@protradepubinc.com

(877) 935-8906 x201

Subscriber Services: (877) 935-8906 x200

circulation@protradepub.com

Fax: (541) 228-9972

Mailing Address: Professional Trade

Publications Inc. 27495 2nd Place Junction City, OR 97448

Concrete Decor™ is published eight times a year by Professional Trade Publications Inc. Bulk rate postage paid at Lebanon Junction, Kentucky, and additional mailing offices.

ISSN 1542-1597

© 2019 Professional Trade Publications Inc. All rights reserved. Acceptance of advertising in this magazine and mention of specific products or services in editorial content does not imply endorsement of the product or service by Concrete Decor. No part of this publication or its website may be reproduced without written permission of Professional Trade Publications Inc.













#### Dear Readers,

I love when our house is full of family and friends. My wife, Sheri, on the other hand, tends to be a little apprehensive about preparations because there are so

many things to do before guests arrive. I know there are things to do ahead of time, but I'm more focused on simply having company. The preparations don't bog me down.

The recent Concrete Decor Show had some of these same characteristics. We spent a year getting ready, but the effort was well worth it. I met new people, learned from them, discovered new products and watched experts in action. I also listened to presentations about running a business, making more money and using social platforms. I even got to spend time hearing how the show helped people in a way I never considered. Best of all, I made new friends.

What I feel compelled to share is I wouldn't have experienced any of these benefits if I had stayed home. I know I personally didn't really have a choice, but if I had stayed home my life wouldn't have improved. I wouldn't have had the opportunity to get all pumped up about my industry, again! It all happened because I went.

Some may argue but I still believe business doesn't happen by itself. We've got to put our minds and bodies into motion for things to change or improve. It just doesn't happen any other way.

I assume most of you reading *Concrete Decor* are business owners, so you know self-motivation doesn't always come easy. We're constantly pushing and pulling things, so often when time frees up we just want to chill. As business owners, however, it's imperative to structure the hours of our days, weeks and months — including "chill" time — appropriately to ensure we get everything accomplished while taking care of ourselves.

As I've shared before, decorative concrete is a technical trade. We should get paid for doing professional quality work, but we must also remember that being a professional requires an ongoing investment of our time and resources to attend events where we can recharge, unclutter and reset our sights. I don't believe there's a better place to do this than at a show like ours.

In 2020 the Concrete Decor Show takes a year off, but we'll be back in 2021. Plan to join us now. It's where decorative concrete means business and a whole lot more!

Sincerely,

Bent Mikkelsen Publisher

On the cover: The multilayered floor in this home in St. Petersburg, Florida, features Sable and a custom blend of Golden Brown and Hammock from the PurEpoxy Metallic Flooring System collection. It was installed by this issue's Artisan in Concrete, Elton John Strawderman.

Photo courtesy of Epoxy Artisan









# concrete **DECOR**

Vol. 19, No. 8 November/December 2019



INDUSTRY NEWS

## 4 2019 Concrete Decor Show Returns to Texas

Attendees discover good things can come in small packages by Stacey Enesey Klemenc

#### 8 Four men inducted into Decorative Concrete Hall of Fame

PRODUCT NEWS

#### **10** Product Roundup, Texas Style

2019 Concrete Decor Show promotes product launches, ongoing demonstrations

THE BROADCAST

#### **18** Survey Says:

Two well-established training programs graded as choice preferences by Joe Maty



PROJECT PROFILE

#### 25 A Small Detail

Project included installing decorative concrete for the pint-sized Dallas KidZania, Stonebriar Centre in Frisco, Texas by K. Schipper



## 28 Heavy into Metal

Radical artisan decides metallics are the only way to roll by Jon Kopp



Waste glass in concrete has advantages and disadvantages By Dr. Kaveh Afshinnia, P.E., LEED GA





- 1 PUBLISHER'S LETTER
- 3 ADVERTISERS
- 14 MARKETPLACE

#### **EXPERTS**



Dr. Kaveh Afshinnia, P.E., received his doctorate in repair and rehabilitation of concrete structures and infrastructures from Clemson University. He serves on several technical committees for the American Concrete Institute, has had several articles published in peer-reviewed journals, and has presented at ACI conventions and international conferences. Kaveh has more than 12 years of experience designing new structures, as well as testing, evaluating and rehabilitating existing

structures and infrastructures. Currently, Kaveh is a structural engineer for T.Y. Lin International in Alexandria, Virginia. He can be reached at (202) 276-8554 or kaveh.afshinnia@tylin.com. See Kaveh's article on page 34.



Jennifer A. Faller has been in the surface preparation and concrete chemical and polishing industries for the past 24 years. A decorative concrete contractor, technical consultant, trainer and owner of a distribution company, Jennifer has held polishing positions as a brand, product, project and business development manager, as well as vice president of operations, director of technical services and global account manager. Recently, she's an independent technical consultant at her

firm, Concrete In-Site LLC. She also consults on behalf of other firms. Contact her at concreteinsite@gmail.com. See Jennifer's article on page 37.



Jon Kopp is founder, owner and operator of Quality Epoxy in Phoenix, Arizona. Check out his latest projects at FaceBook.com/QualityEpoxy and YouTube.com/Quality Epoxy. Jon can be reached at qualityepoxy@gmail.com. See Jon's article on page 28.

#### **ADVERTISERS**

Butterfield Color
Concrete Decor Marketplace 9, 14
Concrete Polishing HQ
Concrete Polishing HQ Back Cover
Fox Blocks
GranQuartz 17
McKinnon Materials Inside Front Cover
Nox-Crete
Pacific Palette (Sparkle Grain) 14
Stone Edge Surfaces
Surecrete
Trimaco
Trimaco Inside Back Cover
Trinic
Versatile
Wagner Meters
Wagner Meters
World of Concrete

For information from any of these advertisers. go to connect.concretedecor.net/PIRC





(Above) Chris Sullivan of ChemSystems Inc. addresses the crowd during one of the many product demonstrations at the show. (Right) Brian Farnsworth of Cement Colors answers a question about a product. (Below right) Troy Lemon mugs for the camera while Emil Gera and a workshop participant toil away. (Below) A Bon Tool rep explains a tool to visitors.

# **2019 Concrete Decor Show Returns to Texas**

# Attendees discover good things can come in small packages

by Stacey Enesey Klemenc

THE atmosphere was inviting and the modest but eager crowd engaged at the 2019 Concrete Decor Show in Arlington, Texas, Oct. 28-31. Many of those who attended reported it was a great time to reconnect with old friends, establish new contacts, discover products and tools, and witness some of the industry's elite — such as Troy Lemon, Emil Gera, Rick Lobdell, Cindee Lundin and Jake Brady — lead workshops on the convention floor.

"I reaped so much value taking the time to be here," says Brian Farnsworth, general manager of Cement Colors in Fort Worth, who exhibited, led a seminar and helped with product demonstrations. "It was a great show. I met a lot of interesting people and I got 100% out of the show that I had hoped for."

He says he especially liked the ongoing demonstrations held at a variety of locations on the convention floor that featured installation of products that were on display during the show. Attendees didn't get swallowed up by a huge crowd, could see the products in action and ask questions that got answered on the spot.







presentation that included a seminar led by Steven Reinstadtler in a classroom setting followed by demonstrations on the topics covered in the convention hall. The product demonstrations were open to all.



#### Positive vibes

Randy Smith of Texas Polished Concrete in N. Richland Hills came to the show to protect his livelihood. "I don't want the industry to cheapen our trade," he says. "We have a right to make a profit, to deliver good work for a good price."

Smith attended Covestro's invitationonly coatings seminar which he says was an enlightening experience that was very informing.

"I learned about options I could suggest instead of polishing," he says, including the benefits of polyaspartic and penetrating sealers. Turns out,

he continues, "Polishing isn't always the best solution for large warehouse floors."

Carrla Leszcynski, the GFRC concrete lead for Gametime|Playworx, a company in San Marcos, Texas, that specializes in playgrounds, attended the show to get pointers on how to better carve and color sculptures for her projects. The show didn't disappoint. She says she "walked away completely inspired" from the time she spent with Lundin of The Studio by Cindee Lundin in Marana, Arizona, who led a faux bois workshop.

"She had a very original take on what

can be done with concrete as an art form and elevated my understanding about how versatile concrete can really be in the aftermarket," Lesczynski says. "She went over the entire production pipeline," and also covered marketing and product recommendations.

"I would definitely recommend her very hands-on class to beginners all the way up to advanced concrete sculptors," Lesczynski says.





Cindee Lundin (left) leads a workshop where she and show participants make a bird bath that incorporates the art of faux bois, which is French for false wood. Carrla Leszcynski (center) says she was truly inspired by the experience.



#### INDUSTRY NEWS

Attending the Concrete Decor Show for the first time two years ago in Florida, Steve Seipelt of Amended Surfaces in Cincinnati (at right below) made the trek to this one in Texas. The soon-to-be retired firefighter worked alongside Lemon of Cornerstone Decorative Concrete in Holland, Michigan, and Gera of Emil J. Gera Concrete (below at left) in Weatherly, Pennsylvania, sculpting and coloring vertical concrete. "My favorite part (of the Concrete Decor Show) is being able to dive into the projects and do handson work. This is how you really learn."



Fox Blocks was once again in on the action as it supplied the ICFs used to make the demonstration walls for the workshop on vertical carved concrete and at DreamKrete's space. Besides being great for constructing walls, ICFs can be used anywhere you need a structural substrate that you want to finish with decorative concrete.

Seipelt says he was disappointed that there were so few hands-on workshops and no outdoor exhibits or demonstrations this year. Still, he says, "I picked up more tips and tricks from the artisans that I worked with. The more time you spend with them, the more they open up to you and are willing to share."

Lobdell of Concrete Mystique in Nashville and Debbie Ohland of Engrave-A-Crete in Mansfield, Missouri, led a workshop on engraving and stencils to show attendees how an ordinary piece of concrete could be transformed into an enticing work of art by using stencils, engraving tools and dyes.

In another workshop, Brady of Jake Brady Concrete by Design in Sarasota, Florida, enlisted some attendees to help create a seamless 10-foot bench out of CTS RapidSet Cement and glass fibers.



The massive GFRC unit was cast and demolded in the same day. The bench's distressed yet slick finish was created with purposely over-plasticized concrete lightly sanded and then a high-gloss sealer was applied. As a finishing touch, it was accented with stains from the nearby vertical workshop's supplies.

Aside from the workshops in the convention center and classes held nearby in the Sheraton Arlington, the Concrete Decor Show featured

an evening preview and two days of exhibits where attendees could learn about products just released or well established, as well as see many of them in action.



Debbie Ohland and Rick Lobdell used Engrave-A-Krete tools and SurfKoat dyes to bring this engraving to life.



THICKER THAN
BUILDER'S PAPER













facebook.com/TrimacoINC

twitter.com/TrimacoINC

😈 instagram.com/Trimaco\_INC

# Four men inducted into Decorative Concrete Hall of Fame

THIS year, four men joined the ranks of those honored in the Decorative Concrete Hall of Fame at an induction ceremony and dinner held Oct. 28 at the 2019 Concrete Decor Show in Arlington, Texas: Marshall Barabasch Sr., head of Shaw & Sons Special Project Division; Lance Boyer, CEO of Trademark Concrete Systems; and Jeff Irwin and Paul Sowa, co-owners of Proline Decorative Concrete Systems. All three companies are based in Southern California.

Professional Trade Publications, parent company of *Concrete Decor* magazine, established the prestigious hall in 2010 to honor the individuals and companies who have contributed significantly to the advancement of decorative concrete as a business and an art form.

Since the Hall of Fame's inception, including this year's newest members, 35 individuals and two companies have been bestowed this honor for unselfishly giving their time, energies, loyalty and resources to help the decorative concrete industry not only grow but flourish.

Honorees are chosen by Hall of Fame members. Brief bios of the 2019 inductees follow:

#### Marshall Barabasch Sr.

With more than 40 years of themed, stamped and architectural concrete experience under his trowel, Barabasch specializes in themed concrete. He is well-



known and highly respected in the Southern California theme park circuit.

Throughout his career, Barabasch says he's probably poured more concrete for the Disney resorts in California than anybody else in the 30+ years (and counting) that he's been involved with the Mouse. He has also done a good deal of work for the Disney resorts in Florida, China and Japan.



(From left) Host and emcee Bent Mikkelsen accepts the Decorative Concrete Hall of Fame Award for Marshall Barabasch Sr. alongside 2019 inductees Lance Boyer and Jeff Irwin. Irwin's partner, Paul Sowa, was also unable to attend.

Currently heading up the Special Project Division for Shaw & Sons Construction Co. of Costa Mesa, California, Barabasch was a teenager when he first began pushing wheelbarrows of concrete on the weekends for his father-in-law, a cement mason from back East. Before long, he joined the local union as an apprentice.

On one of his first jobs, Patterned Concrete Industries was brought in as a sub to do some stamping work and Barabasch was intrigued. By 1977, he was on board with them and steadily advanced through positions with other big-name decorative concrete companies, putting him on the leading edge of the budding stamping and staining sector of the business.

Always experimenting with offthe-wall materials, he quickly earned a nickname among his crews — Dr. Frankenstein — for his concrete escapades with everything from spaghetti to bubble wrap. One time he even almost killed himself when he mixed chemicals together that could have turned out deadly. But, just like the monster, he survived the jolt.

By 1988, Barabasch and two partners opened a Patterned Concrete franchise

in Ontario, California. Ten years later, he moved on to serve as director of architectural concrete for Peterson Brothers Construction, a large Southern California contractor.

By 2009, he says he partnered with his very talented son, Marshall Barabasch Jr., to form MB Concrete Systems, where the duo tackled everything from extremely high-detail themed work to simpler staining and flatwork gigs.

In 2013, MB Concrete Systems merged with Shaw & Sons to create a new department that would be headed by Barabasch Sr., with his right-hand man, Barabasch Jr., the No. 2 man in charge. Barabasch Sr. says the business venture is a great fit because Shaw is the best company he knows of when it comes to high-end architectural concrete while his new Special Project Division is the best at what it does, "making rock all crumbly and cracky."

Although the list is too extensive to list here, Barabasch's more recent handiwork can be seen at the Universal Studios Hollywood Wizarding World of Harry Potter and Jurassic World, as well as throughout Disney's Cars Land and the Indiana Jones ride.

#### **Lance Boyer**

CEO of Trademark Concrete Systems Inc. based in California, Boyer has more than 33 years of experience in the decorative concrete industry. Prior to



founding Trademark in 1997, he was vice president for 11 years of Sullivan Concrete Textures, a well-known and respected pioneering decorative concrete company.

Trademark, which has offices in Los Angeles and Camarillo, began with a small core of six highly experienced employees before it grew into the 120-person strong company it is today.

From its humble beginnings of residential projects and small commercial work, Trademark is now one of the largest decorative concrete contractors in the United States. Today it performs work for a diverse roster of clients including municipalities, retail establishments, major universities, entertainment venues, resorts, museums, churches and medical facilities.

An active member of the American Concrete Institute and American Society of Concrete Contractors, Boyer is involved in committees and publications for both organizations. This year, he was named an ACI Fellow for his contributions to the concrete industry and concrete technology. In addition, he was the ACI ambassador for the 2019 Decorative Concrete Symposium in Xi'an, China.

Boyer also chaired the ACI C-601D committee that developed "Placing and Finishing Decorative Concrete Flatwork," a book which serves as the knowledge source for the ACI Decorative Concrete Finisher certification program. The hard work that went into this endeavor netted him. ACI's 2016 Education Award.

Boyer is the driving force behind Trademark's ongoing community outreach programs that involve numerous decorative concrete presentations and workshops, all of which are AIA accredited. The company also annually makes thousands of samples pro bono so designing professionals can explore concrete's color and texture.

The many accolades Trademark has amassed over the years include numerous ASCC Decorative Concrete Council's decorative concrete awards for outstanding projects and multiple ASCC Safety Achievement Awards.

Nationwide, Trademark was named America's Best Concrete Contractor in 2012, and one of America's Top Concrete Contractors in 2013 by Concrete Construction magazine.

Trademark's current work includes the decorative concrete work at the Los Angeles Stadium (Rams and Chargers) & Entertainment District, Academy Museum of Motion Pictures, NoHo West and Rosewood Miramar Beach Hotel.

Notable past work includes Los Angeles County Museum of Art, Petersen Automotive Museum, Waldorf Astoria Beverly Hills, Hollywood Bowl, Wilshire Grand Center, Hotel Californian, Wallis Annenberg Center for the Performing Arts, and Television Academy Saban Media Center.

#### Jeff Irwin and Paul Sowa

Irwin and Sowa have been good friends for as long as they can remember, going back to their childhood years.

In high school, Irwin was always tinkering with something and relished creating new things. He landed a job with a water ski company where he made skis and equipment. He then moved on to a position with a firm



Jeff Irwin



where he learned about making molds from urethane foam. From there, he opened a shop that made after-market parts for Corvettes.

Meanwhile, Sowa was working for a concrete company, setting forms and dabbling in stamp work. It was in the '80s, a time when concrete stamping tools were scarce and contractors were eager for better equipment.

Sowa told Irwin about the demand for better stamps and one thing led to another. Before long, the two friends began developing stamps as a side job.

In 1990, they headed to Las Vegas where they introduced their first seamless texture mat at World of Concrete. The mat was a big hit and by 1991 Irwin and Sowa went into business together full time and founded Proline Decorative Concrete Systems in Oceanside, California.

Proline's products were popular among Las Vegas casinos, and the budding company developed its Roman Slate mat for Caesar's Palace and crafted a custom border stamp for the Bellagio. Today, Sowa and Irwin produce more than 150 stamps out of high-quality urethane made especially for them — a lightweight material that's not too hard and not too soft — that renders imprints that look like the real thing.

Besides textured skins, the company has developed other products and techniques that have bettered the decorative concrete industry including a tamper with a patented flexible coupling and EZ-Tique, a unique antiquing method.

Most recently Proline introduced magnetic pattern stamps that could revolutionize the decorative industry. Contractors who have used them say they are faster, easier to use than traditional stamps and a real gamechanger for stamping. Currently, there are 10 patterns of magnetic stamps with more coming soon.

The two men behind Proline believe innovation is the key to their success as they continue to bring new items to the industry.

Order products, tools and equipment online from supply stores we know and trust.

concrete decor MARKETPLACE

Find it fast at store.concretedecor.net

# PRODUCT ROUNDUP, TEXAS STYLE

2019 Concrete Decor Show promotes product launches, ongoing demonstrations

By no means an inclusive list of interesting finds, there was plenty to explore at the 2019 Concrete Decor Show at the Arlington Convention Center in the shape of products and tools.



WITH some things, it's what goes up first that can really matter. Imperial Core Bond, a multiuse polymer-modified cement-based material from Kingdom Products, was used as the basecoat for Kingdom Products' Imperial Vertical Carving Mix. A one-component mix that just requires water, Imperial Core Bond was the bonding agent behind the walls of the DreamKrete exhibit and the training wall (pictured above) in Emil Gera and Troy Lemon's vertical concrete workshop. The two men led a team that used Vertical Carving Mix to create simulated brick, stone and wood that was colored with multiple shades of Kingdom Products color hardener. The same Vertical Carving Mix was used in Cindee Lundin's workshop to create a faux bois bird bath.





Trinic was on hand displaying one of its newest products, Car-VZ, an innovative additive developed by Washington-based artisan Warren Ness and Trinic owner, Bob Chatterton. The ultra-concentrated material is designed to be added to locally supplied sand and cement to create a carvable mix that also can be polished. The men say the mix has a long open time and is resistant to efflorescence and micro-cracking. To take the vertical product to the next level, the duo came up with Colo-RZ, available in a wide range of natural colors. The products were used to create a striking fireplace and surround at a demonstration at the nearby DreamKrete booth.

💲 www.trinic.us

Amid much fanfare, AggretexSC, heralded as "Concrete that Rocks," debuted its newest polishable overlay, RazzoEFX. The revolutionary highquality mix featuring stunningly sophisticated aggregates springs to life by blending with water, placing and polishing. RazzoEFX also includes several SKUs with glass premixed in



AggretexSC was among a handful of exhibitors that launched new products at the show. The high-end flooring company debuted its newest polishable overlay, RazzoEFX, which includes several SKUs with glass premixed in the bag.

the bag! Applied at a minimum depth of 3/8 inch, the selfconsolidating overlay has a working time of 20 minutes. You can walk on it in two hours and polish it in as little as 18-24. White Noise will lead the new line's release in December, followed by Grey Matter and others in the coming months. Both White Noise and Grey Matter are engineered to be mixed with hundreds of kinds of aggregates for infinite design flexibility in a custom concrete overlay.

#### www.aggretex.com

Nox-Crete was showing off Blast-Off, a tried-and-true fast-acting concrete remover that's superb for cleaning texture skins and stamps. Just spray it on with Nox-Crete's Pump Foamer, scrub and rinse with water when the foam turns from pink to white. The biodegradable liquid made from sugar cane and sugar beets takes off the hardened concrete residue and contains a powerful detergent that



cuts grease, oil and dirt, leaving behind a clean, crisp stamp ready for the next job. Blast-Off can be used on aluminum, steel, plastic, glass, fiberglass, rubber and painted metal surfaces, including tools and power equipment.

#### www.nox-crete.com

Trimaco FloorShell ProBoard, a heavy-duty yet lightweight surface protector used in the show's workshop zones, is a breathable, reusable, leakand impact-resistant floor covering made from recycled fibers. The product, an ideal alternative to Masonite, is held in place with a special



brown-colored seam tape for board-on-board adhesion and a red polyethylene tape to secure the covering to the surface. And unlike the red tape you sometimes have to contend with, this one leaves nothing behind.

www.trimaco.com

Among its many products, Laticrete shared the advantages of its Spartacote Vapor Ban ER, a versatile moisture vapor barrier and fast-curing primer applied in one easy step. The 100% solids, two-part epoxy installed as a single coat is specifically designed to control the moisture vapor emission rate from new or existing concrete slabs. The moisturemitigating coating, designed for epoxy or polyaspartic finishing systems, cures in three hours. It can be tinted or broadcast with chips or quartz media.

#### www.laticrete.com

Bloody Marys weren't the only thing Makinex Construction Products was serving at the show. Also powering up the crowd was its Dual-Phase generator line. The single- and threephase portable generators weigh less than 350 pounds, making them much easier to maneuver on the job site, as well as load and unload. Equipped with a rare earth magnet alternator, these generators produce 15% more power than conventional copperwound machines. Contractors report they can run a three-phase grinder, a one-phase grinder and a vacuum all at the same time.



Photo courtesy of Makinex

#### www.makinex.com

If restoring old floors is part of your game plan, SlabArmor from Multiquip allows you to produce a polished look without polishing. The game-changing SlabArmor works well with just about any concrete mix and can be used as a stand-alone product or as a more beneficial multistepped system. It can restore, densify, cure and control water evaporation all in one fell swoop. SlabArmor Starter and Closer close capillaries within a slab, promote hardening and produce an attractive, long-lasting finish ideal for warehouses, distribution centers and retail stores.

www.mgslabarmor.com

### THANKS TO OUR SPONSORS

Many thanks to the following companies that donated product to make the show's workshops and demonstrations possible:

**Airlite Plastics · Barnsco Decorative Concrete Supply** BN Products USA · Chapin · Covestro · Engrave-A-Crete Fox Blocks · Graco · Kingdom Products · Kraft Tool Multiquip · Nox-Crete · RapidSet · Sansoe Snapties Skudo · SpiderLath · Stone Edge Surfaces SurfKoat · Trimaco · Wooster

#### PRODUCT NEWS

BN Products USA displayed the ultimate mixer combo that can blend up to 220 pounds of self-leveling materials, epoxies and overlays. The BNMS-6400 Portable Mixing Station can be locked into place for hands-free mixing. It has a lid to accommodate a vacuum attachment, a removable splash cover to keep the job clean, a



built-in timer, and an upgraded bucket that allows you to walk and pour or dump the whole load at once.

#### www.bnproducts.com

Because of the overabundance of joint separation and cracks caused from using aromatic polyurea and urethane products, Solid Solution Products urges the industry to consider using its EZ-Pour joint filler for decorative concrete floors in places such as retail establishments and grocery stores. The 100% aliphatic polyurea joint sealant has greater elongation and slower reaction properties allowing for a longer wet-out time to promote better adhesion and less separation. The product is unaffected by UV rays and is colorfast regardless of the lighting. It can be used to fill joints inside or outside.

#### www.ssppolymers.com

Besides its extensive rental equipment inventory, Runyon Surface Prep was at the show touting its own tooling line, especially its Magnetic Preload System built for power trowels, auto scrubbers



and swing machines. With this tool-holding system, contractors can quickly change any 3-inch Velcro-backed tooling on a standard-sized pad driver. The system is made up of a stainless-steel ring that bolts to the pad driver and a tool holder ring with embedded magnets on one side and six recessed slots for the tools on the other.

#### www.runyonsurfaceprep.com

Versatile displayed its Lava Flow Metallic **Epoxy Floor Coating** with its mesmerizing color shifts and subtle metallic sparkle. American made and American strong, Lava



Flow can deliver stunning results with minimal experience and training. It dries to a glassy finish on its own but can be top-coated with polyaspartic for added scuff resistance and gloss. Versatile provides a variety of polyaspartic topcoats in gloss and matte finish (seen here).

#### www.versatile.net

Looking a whole lot like terrazzo, Ardex K523 is a blend of Portland cement. hydraulics cement and black-and-white aggregate that's used to resurface indoor floors. The selfleveling topping can



be integrally dyed or topically stained, and metal terrazzo strips can be incorporated as design elements. Once installed, Ardex K523 can be walked on in two to three hours and polished in as little as 24, providing an exposed aggregate surface that designers just love.

#### www.ardexamericas.com

JustCut's extremely fast-cutting 8-inch turbo segmented blade produces smooth lines for concrete sawing and works efficiently at cleaning out joints. Designed for dry cutting, this popular .095 inch-thick blade can be stacked two at a time if a thicker blade is desired for the job.



#### www.justcutinc.com

Graco spotlighted combining the ToughTek CM20 continuous mixer with the ToughTek S340e piston pump to show how effectively crews can mix materials and pump them onto a surface from the same location. Simply set



the water flow rate for the material being used, pour the bag into the CM20 dry hopper and the machine automatically mixes it up and then drops the mud into the S340e wet hopper. From there, the mixture is ready to be pumped through a hose onto a surface. Portable and easy to set up and use, both mixer and pump plug into standard 120V outlets.

#### www.graco.com

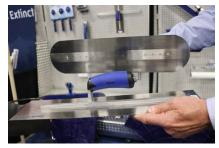
When it comes to cup wheels that get the job done, look no farther than the S-Cup Aggressor from World Diamond Source. Available in 5 and 7 inches that fit threaded and nonthreaded hand grinders, they are the company's most aggressive cup wheel for concrete removal and prep work ... a must-have for all



concrete polishers and surface prep contractors.

www.worlddiamondsource.com

Steel City Trowels, a new line Bon Tool introduced at the show, features copper rivets on each end of the shank attached to the blade to make the tools more stable. and durable. Made in



the USA, these finishing trowels are available in a wide range of sizes with a rounded or square end and a wood or comfortgrip handle. They come in four metals: carbon steel, razor stainless steel, golden stainless steel and blue steel.

www.bontool.com

To eliminate human error in color matching, SealBoss **Concrete Solutions** presented its 6500 CLR Polyurea joint filler that can be colored any shade with a solvent-based



stain or dye after it's placed. The material has an 80-shore hardness while still having a 200% elongation. The product is sold in bulk as well as 22-ounce cartridges.

www.sealboss.com

Kraft Tool's Diamond XX magnesium screed features reinforcement throughout the length of the tool to maintain straightness in demanding applications. Made in the USA, the magnesium screed is



30% lighter than its aluminum cousins but is built to be super straight, strong and rigid. Securely fastened metal end caps extend the screed's life by preventing concrete buildup inside the tool.

www.krafttool.com

Convergent was on site displaying ColorFast, a lithium-based line designed explicitly for colored architectural concrete. A complete collection of stain, coating, finish and gloss products, ColorFast has everything needed for prepping, applying, finishing, repairing, protecting and maintaining beautiful floors. Producing a gloss that's achieved in a fast two-step process, the coating is rolled on and the stain is sprayed. The system protects the surface with a breathable micro-coating that's refortified with proper maintenance. It's called ColorFast for more reasons than one.

www.convergentconcrete.com



#### PRODUCT NEWS









A product of German ingenuity, Poraver Expanded Glass is a sustainable product made from postconsumer recycled glass that can help you qualify for LEED credits. Used in place of sand or gravel, the globular glass grains are available in several



sizes from .04 mm to 4 mm. Poraver has 1/5 the density of traditional aggregates, meaning you can replace 100 pounds of sand with 20 pounds of the creamy white granules to fill the same volume. The result is a highly workable, lighter mixture that doesn't trigger an ASR reaction and increases thermal insulation and sound absorption.

www.poraver.com/us

Dustcontrol presented its newest twin, the DC Tromb Twin, with its re-engineered motor package for easier access, a stronger chassis to improve stability and an improved inlet for the vacuum hose. The portable pre-separator and dust extractor combo outfitted with a washable prefilter and HEPA 13 filter is perfect for concrete grinding. About



90% of the coarser dust particles stay in the pre-separator while the remaining 10% goes into the extractor's filter cyclone, saving on filter replacements. The unit has a smaller footprint and its two components are easily disconnected and reassembled, making transport easier.

www.dustcontrol.us

MidWest Rake not only displayed its SpeedSqueegee tools designed to apply resinous flooring materials such as epoxy and urethanes but also demonstrated their abilities at the ChemSystems booth. Color coded to make them easy to identify, the squeegees come in four blade styles: flat flex, flat stiff, scallop notched and V-notched.

www.sevmourmidwest.com



#### WE DON'T JUST DABBLE IN CONCRETE AND MASONRY.

We're the authority on it. That's why each year, WOC is the first and only annual international event to bring you all the new products & equipment, training and technology to get the job done faster and more profitably than ever before. Join us, and in just five days you'll find everything you need to conquer the year ahead.

**REGISTER TODAY** worldofconcrete.com



FEBRUARY 4-7, 2020 EDUCATION: FEBRUARY 3-7

LAS VEGAS CONVENTION CENTER LAS VEGAS, NV, USA





A selected participant in the Trade Events Partnership Program

#### PRODUCT NEWS

The Mongoose X from Engrave-A-Crete was the star of the company's booth as well as the engraving and stenciling workshop led by Rick Lobdell and Debbie Ohland. Its ergonomic design features an easily



removable, optional handle that lets an operator use the tool in confined spaces or standing up. A spring-loaded cutting head promotes full control by pressing down to cut and releasing to stop. Capable of a wide range of cuts, including straight cuts, arcs and circles, this versatile tool quickly and efficiently transforms existing concrete into works of art.

www.engraveacrete.com

During the show, RapidSet demonstrated the use of SpiderLath SLSM 475, a lightweight fiberglass lath with 1/8-inch openings made for reinforcing epoxy floors. Using the lath as an underlayment will prevent epoxy from cracking. It's



easier to use than the metal variety and can be easily cut with scissors or a knife.

www.spiderlath.com

One of USG's featured products was the Durock Brand PWT Pro, a self-leveling overlay that can be polished to expose large aggregate on interior floors in new construction or renovations. The fast-



setting cementitious hybrid can be walked on in two hours and accept trade traffic in 24. Specifically designed as a wear surface equal to concrete, the topping can be integrally colored or topically dyed.

www.usgperformanceflooring.com

Stauf, a company that's been manufacturing adhesives since 1828, was at the show promoting ULC-500 Level Seal, a flexible leveling compound that will mitigate moisture and add resiliency to any floor coating. Among the two-component urethane's many positive features are it dries quickly, is certified "green," remains elastic and is resistant against



Photo courtesy of Staut

aging. It's also suitable for radiant heat systems.

💲 www.staufusa.com

After the launch of the new Lavina Elite Series in January 2019, Superabrasive's 30-inch grinder, L30GE, continues to be one of its most popular machines. It is propane-powered with an intelligent fuel-control system, EPA and CARB recognized Blue Sky engine, and it comes with integrated weights, misting system to suppress dust, low-profile skirt with flexible brush, new handle, front and



back LED lights, and even a phone station and cup holder.

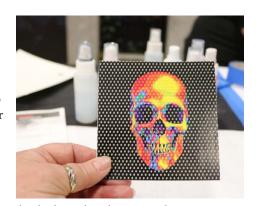
www.superabrasive.com



GranQuartz cast its spell at the show in the form of Surface Pro Black Magic cup wheels, new ceramic cup wheels that are great for both wet- or dry-cutting concrete. Available in 30, 50, 100, 200 and 400 grits, the very economically priced cup wheels are perfect for edge grinding against walls.

www.granquartz.com

All decked out for Halloween, Floormaps was out in full force teaching anyone interested how to use its stencils for fun and profit. The company's newest design option features custom graphics



printed on adhesive-backed vinyl with an 80% design and 20% perforation ratio. The configuration prevents delamination, allowing a consistent bond of the clear topcoat with the base coat below, embedding the design between the two. The prints can be paneled out seamlessly over a large surface or the design can be die-cut to any shape or size. Designs reportedly turn out better on darker surfaces.

www.floormapsinc.com

Skudo's HT Commercial System, a high-traffic floor protector used at the show, comprises a nonwoven breathable fabric kept in place with a basecoat. The temporary floor protection allows the concrete to breathe and cure at a consistent rate across the slab.



When it's time to pull it up, the basecoat adheres to the mat more so than the surface, leaving no residue or curing lines in its wake. The product is then disposed like other normal construction debris.

www.skudousa.com

Stone Edge Surfaces did a soft launch of its new Deck & Balcony Waterproofing Systems at the show. Made to be installed over plywood or concrete substrates, the line contains three waterproofing systems — standard, pro and custom — that were designed with Stone Edge products that have been used in the industry for years. According to Bruce Grogg, company president, contractors can save anywhere from 23 cents to \$1.08 per square foot with this new onecomponent product over competitors' two-component mixes.

www.stoneedgesurfaces.com

If you're interested in bringing a natural look to resinous interior floors, Torginol had the answer on display. Torginol Wood Flakes, offered in 15 traditional and modern finishes, are made from super-thin wood veneer and broadcast like chips. The application requires extra sanding to get an even surface, but when paired with a resinous coating system, Wood provides a unique style.



www.torginol.com

Pool decks, splashpads and playgrounds are prime candidates for the likes of Rubcorp's rubber surfacing products. Featuring virgin rubber granules mixed with polyurethane that's



troweled over concrete, the soft surfacing product promotes safety and durability in a vast array of colors and design possibilities. The Coppell, Texas-headquartered company offers training and support in addition to distribution.

www.rubcorp.com

# Surface Pro® Black Magic **Transitional Polishing Pads**

Make scratches DISAPPEAR faster! NEW Surface Pro Black Magic is a revolutionary transitional diamond pad used between metal bond and resin bond for high quality aggressive scratch removal.



Atlanta, Anaheim, Boston, Chicago, Dallas, Denver,

Houston, Pompano Beach, St. Cloud, S. Salt Lake,

1-800-458-6222 · GranQuartz.com

**Visit Our Stores!** 

San Leandro and Seattle.

# **Survey Says:**

### Two well-established training programs graded as choice preferences

by Joe Maty

ATOTAL of 47 survey respondents shared their opinions on decorative concrete training programs in an informal survey conducted by Concrete Decor magazine. The survey was sent to current and past magazine subscribers as well as Concrete Decor Show attendees.

Asked to list the decorative concrete classes they judge the best, respondents cited The Concrete Countertop Institute, based in Raleigh, North Carolina, and operated by Jeff Girard and Lane Mangum, 34 times. Girard and Mangum have contributed articles to Concrete Decor and presented programs at the Concrete Decor Show in the past.

Runner-up was the Concrete Design School in Eureka Springs, Arkansas, with programs presented by Brandon Gore and Dusty Baker. They received 21 mentions. Both men's work has been featured in the pages of Concrete Decor.

Other training programs were listed on a small number of survey replies — Cody Carpenter's Plan B and Nathan Giffin's Vertical Artisans (four times); World of Concrete, Buddy Rhodes and EliteCrete (three mentions); and training



Jeff Girard leads a workshop, "Create a Firepit Using GFRC," at the 2014 Concrete Decor Show in Fort Worth, Texas.

offered by Bob Harris (two times).

"Very informative and hands-on," one survey respondent said of the "Ultimate Class" offered by CCI. "Gave the why, not just the how-to."

"Jeff and Lane do an incredible job

setting you up to win with concrete," wrote another about CCI classes. "The fundamentals are explained in great detail and the ongoing support is worth its weight in gold."

"Loved the courses," was a comment about the training staged by Concrete Design School. "So much material, such high-quality craftsmanship."

Seminars at World of Concrete, one survey participant wrote, offers value for "beginners" and introduces "new things" for advanced professionals. This survey respondent also credited the show for offering solid seminars on sealers and fundamentals of placing and finishing concrete.

Still another lauded the efforts of Concrete Decor and its "commitment to advancing the knowledge base of decorative concrete" at its biennial trade show. A special tip of the hat, he added, goes to his "homey," Troy Lemon, which he learned more from "than just about anybody!





866-570-4682

#### Some highlights

- Survey results suggest that contractors generally prefer education/training programs offered by independent organizations, with no endorsement or connection to a company or supplier, with 33 replies indicating this preference. That was followed by programs offered by manufacturers/distributors (18 cited this preference) and industry associations (7). Training programs offered by unions were not mentioned in the preferences.
- Not surprisingly, "technical skills" were listed as the "biggest takeaway" from training programs in most survey replies (30), followed by "product knowledge" (7) and "new friendships/contacts" (5).
- The overwhelming majority of respondents (41 to be precise) said they spend at least \$500 on a training event, on average.

#### **Online programs:** No match for the real deal

Seeking to gauge industry opinion on the value of online training vehicles such as YouTube videos or other programs that can be viewed on demand for a fee, the survey asked about such offerings. Judging from the opinions voiced, there's no substitute for the real deal — in-person training programs offered by knowledgeable industry experts.

"Useful but not deep enough," one reply stated about online videos. Another said some YouTube videos are "mildly helpful."

One survey participant said the videos are of use "to remind or refresh what was said at a class."

But most comments were dismissive of these online videos. "Not recommended," one reply stated flatly.

Another was similarly frank: "YouTube training is usually terrible and full of mistakes that pros don't make."

Perhaps the best summation of the issue were comments like these:

"Tutorials are good. But nothing is better than learning from doing and being able to ask any question to the masters working their craft."

"You can't learn what I do from an online video. You need proper teachers and training to put out quality work."

Still another survey participant made the useful observation that as an alumnus of The Concrete Countertop Institute programs, "We have access to their paid online training videos, which I highly recommend after attending an in-person course."







SHAKESPEARE wondered what's

• wondered what's in a name, and Elton John Strawderman could likely give him an answer or two.

Yes, his mother did name him after

the British superstar, on a dare from a friend, he says, adding it's often a good conversation starter. However, rather than outsized glasses and platform shoes, the real measure of the man comes from the name of his business.

The founder and owner of Epoxy Artisan in Bradenton, Florida, Strawderman says his goal in life is to be the best craftsman possible with his chosen medium: epoxy on concrete.



Like many others in the industry, Strawderman started out doing a mix of concrete work, from digging footers and laying concrete to doing a little stamping and staining.

"You can do some nice stuff with it, but it was really just a way for me to make money," he says. "Then, I ran into Gary Jones from Colormaker Floors and started to get into the skim coating and microtopping. It was great, because I could do a lot more with it. As soon as I found that niche where I could be a little creative, it became something I was definitely passionate about."

It also helped Strawderman realize the products brought something out in him he hadn't known before. "When it comes to color, I can just see it and I know where to put it so it all works out," he says.

Clients agree. It's not uncommon for jobs to take him into the Carolinas and beyond, a fact made more impressive knowing his marketing strategy during Epoxy Artisan's 24 years has been almost all word-of-mouth, although these days he utilizes some Facebook tools, as well.

#### First up: Educating clients

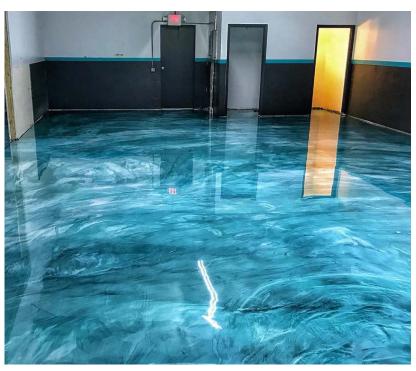
"When people first call, they have either seen my work or I've been recommended to them, or they've seen something that has sparked their interest with an epoxy floor," Strawderman explains. "Right now, these metallic epoxy floors and the pigmented epoxy floors we do are something of a craze."



















His first job, he says, is to educate clients, which means going in and sitting down with them in their homes.

"They see a picture, but they wonder how it would work in their home, how the colors would work," he says. "It's a matter of sitting down and educating them on the process and then developing the color palette for them based on the features of the home. It's a very thorough process before we actually begin work."

#### All in the family

Epoxy Artisan's clients are almost all residential. He notes the company is small, (his wife, two sons and an occasional helper) and Strawderman isn't willing to take on commercial projects that he won't be able to complete at the same high level as his residential jobs. He also says they don't provide the same level of relationships he likes to have with his clients.

"I guess it's a bit more intimate because this is where somebody is living," he says. "We're leaving our artwork on a floor where somebody is going to see it every day."

While Epoxy Artisan has certainly done work on some more-expensive homes — the garage for a \$15 million home is one of his favorites — he says often what he provides is a higher-end floor for the middle class.

That's not to say he's given up on other types of concrete work entirely. The company still does some vertical walls — both interior and exterior with an emphasis on carving and coloring. He has, however, gotten away from doing stamped concrete.

Strawderman adds that keeping the operation within the family also helps ensure a first-class job. Or, as he puts it, "It seems to make things a lot smoother."

He gives particular credit to his wife, Kimberly, who he says helps him communicate with his female clients. She also makes sure everyone knows what's going to happen and everything is lined up and ready to go before the work begins.

And then there's her one special talent: She helps balance out his tendency to give things away.

"Somebody will say, 'We have a little bathroom; it's 40 or 50 square feet," he says. "I'm apt to say, 'Okay, we have extra product anyway.' But my wife tells me I need to charge for that because we're doing work."









#### Quality is paramount

Strawderman says his main goal with a project is to make sure it's high-quality work that the client loves. It pains him when something becomes popular and the market becomes flooded with people who may have taken a two-day class and are using lesser-grade materials without understanding the necessary prep and the finer points of the process.

"People see the dollar signs instead of the finished work," he says. "The craftsmanship starts to fall by the wayside. I believe I'm doing work that's unique for my client." Strawderman continues to take classes, and he doubts he will ever perfect his craft.

"You're never the best at what you do. I'm always looking to see who's out there doing something a little different than what we're doing, and I think that's great. I'm willing to put pride aside and learn from somebody else. That really helps the industry." he says.

"The exciting part is getting to mix those metallic colors and start putting them down the way I see them in my head, and then allowing them to do their own work, then waiting those few hours to come back and see how it all changed," Strawderman says. "It's not just with the metallics. Even with a nice micro-topping flow you can do some integral coloring and really create some magic."

For the Epoxy Artisan, it's all about the finished product. That, and having a happy client.

"We go above and beyond for the clients," he concludes. "The money comes and goes, but the most joy you can have is the relationship with that particular job and the client you've done work for."

## A Small Detail

### Project included installing decorative concrete for the pint-sized Dallas KidZania, Stonebriar Centre in Frisco, Texas

by K. Schipper

ANY people get into the construction trades because of the ongoing challenge of building something new. Imagine the thrill of helping to build a whole new city in 14 weeks.

That's exactly what production manager Jeff Parker, superintendent Juan Garza and a team ranging from eight to 15 artisans with the decorative concrete division of Dallas-based Concrete Preservation have been doing this fall. As for the quick turnaround, well, the "city" is only about 80,000 square feet and sized specifically for children 14 and younger.

When Dallas KidZania opened in the Texas suburb of Frisco in November, it was the first U.S. franchise of this Mexican-based corporation that's dedicated to helping children learn by doing. Set up as a community in miniature, it offers kids the opportunity to role play and earn "money," called kidZos, while trying out 100 different careers.

And, like any good community it needed concrete for streets, sidewalks and a town square.





Photo courtesy of KidZania USA

#### Size matters

Parker explains that the local office of general contractor Turner Construction Co. invited Concrete Preservation, a division of Southwest Construction Services, to bid on the project.



#### **Project at a Glance**

**Project:** Concrete streets, sidewalks and floors for first KidZania facility in the United States, including floor leveling and polishing, and stamped overlays encompassing approximately 25,000 square feet.

**Decorative Concrete Contractor:** Concrete Preservation, a division of Southwest Construction Services, Dallas, Texas, www.concrete-preservation.com

**General Contractor:** Turner Construction Co., New York

Materials Supplier: BC Decorative Supply, Farmer's Branch, Texas, www.bcdecorative.com

Concrete Materials: Stone Edge Surfaces for the stamped overlay products; Increte Systems for the Lisbon Granite and Belgian Fan stamps; Brickform color packs in various colors including gray, red and buff; sealer from SurfKoat.

Challenges: General contractor and owner making changes up until the end of the project; working around the needs of other trades.



Photo courtesy of Stone Edge Surfaces

"We have a great working relationship with Turner and always try to bid all of their decorative concrete," says Parker. "This is the type of job we really enjoy, as thousands of people will see our work on a daily basis."

The job called for a variety of decorative concrete applications to encompass roughly 25,000 square feet of walking space, including floor leveling, polishing and stamped overlays.

"They have more than 20 locations all over the world, and they tried to duplicate what they did in some of those other locations," Parker says about KidZania. "However, the mockup process was lengthy. It took multiple attempts to get just the right look the owner was looking for."

One big issue: finding miniaturized stamps for the city's "streets." Initially the company looked at getting custom stamps made but found it to be cost-

prohibitive for a one-off job. Instead, Parker turned to BC Decorative Supply of Farmers Branch, Texas.

"We work with them constantly. They're our go-to store for any decorative needs," Parker says.

#### Where to

Ultimately, the project team landed on Lisbon Granite and Belgian Fan stamps from Increte Systems. Parker explains they began the stamped portion by installing more than 15,000 feet of zinc strips in the floor. Those served as dividers between the different areas of concrete.

"The roadway, which goes through the middle (of KidZania), was done with the fan-stamp pattern in a medium gray," he says. "Then, along the roads and in many doorways, we had about 7,000 linear feet of 4-inch smooth bands that run along the streets and look like curbs. It's a way to delineate between the different areas, as well.

"The sidewalks are done in the Lisbon Granite pattern, which is just a small random stone, and the color



o courtesy of Concrete Preservation



for that is Sandstone," Parker continues. "Then, there are bus stops throughout the facility and those are done in a herringbone brick pattern in a red-brick color."

To further complicate the job, each "business" required two plaques to be set in the sidewalk outside its front door to inform youngsters where to line up. One side of the door was for young people who were already "hired" to work at the businesses, and the other side was where youngsters lined up to apply for a position.

But those weren't the only places where Concrete Preservation was charged with embedding things in the floor. In the center of the park, a 1,500-square-foot concrete medallion features a variety of shapes in multiple colors sectioned off with zinc strips.

There, "Embedded plaques give the locations of the other KidZanias throughout the world," Parker says. "Each has an arrow pointing in the direction that tells you how far away they are."

#### Flexibility was key

Aside from the challenges of the multiple embeds, Parker says the general contractor and owner made frequent changes right up until the job was finished in early November. And, even though Concrete Preservation was brought in near the end of the job, the company still had to deal with other trades finishing their work while he and his crew tackled theirs – a situation he calls the most-challenging aspect of the job.

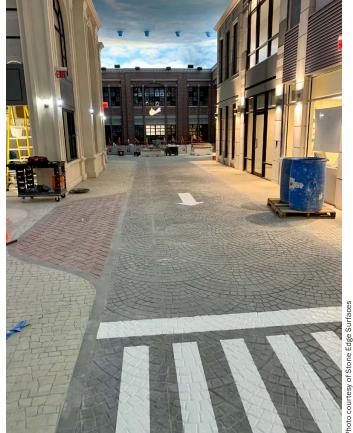
To meet that challenge, the company had to be very flexible.

"We worked with Turner on a daily basis to ensure we did not disrupt the other trades," says Parker, adding they often made special concessions for craftsmen who were there from other countries. "We did a lot of 'jumping around' to make the project go better for everyone involved."

Inconveniences aside, Parker says he's pleased that the job called on such diverse skills from his crew, and happy that they were up to a challenge he doesn't believe some of his competitors could have met.

"It's a fairly large-sized project and it took a lot of resources to pull it off," he says. "We were in a really good position to do this job. Instead of just doing concrete polishing, it's nice to utilize other skill sets and call on some high skill levels to pull it off.

"That we were able to take it on and not just get it done but succeed at it and do a terrific job really makes me feel proud," Parker adds.

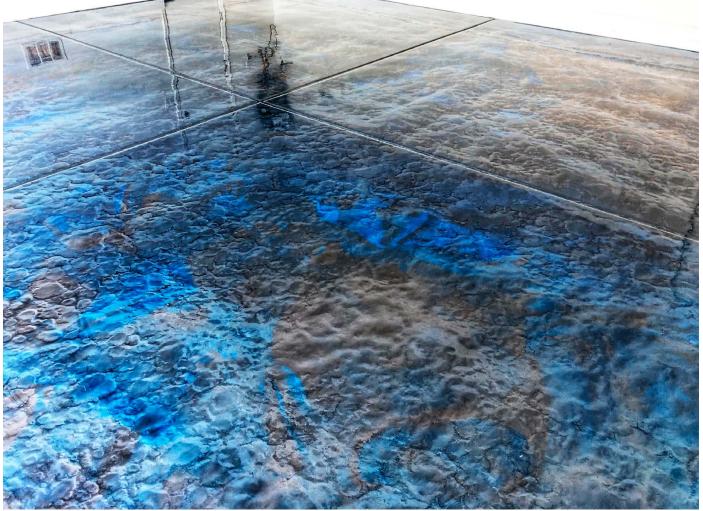


Should KidZania ask Concrete Preservation to do similar work at its other planned facilities in the U.S., would Parker be willing to take the job on?

"Yes, absolutely," he concludes. 🛹







Photos courtesy of Quality Epoxy

by Jon Kopp

HEN I founded my company, Quality Epoxy, 20+ years ago, I only offered solid colors. Over the ensuing years as my competition began to heat up, I also started offering a five-layer chip system with 5/8inch chips. I went with the 5/8-inch chips because the standard industry chip size is 1/8 inch or 1/4 inch and I wanted to offer a better-looking floor than my competition.

Over the course of many years, my chip system floors earned me local recognition. But in time, I began to get burned out on chip floors and solid colors. I was never pleased how solid colors were such a thin coat system. There were always problems with inconsistent pigment.

By 2010, I contemplated selling my company. During this burn-out stage, I was surfing the internet and stumbled upon an amazing flooring system called "metallics." In 2011, I shelved the idea of selling my company and turned my attention to learning all I could about metallics so I could offer them to customers in the Phoenix market.





#### There's a method to my madness

As I started to understand how metallics really worked, I realized there are a hundred different ways to achieve many different looks. So my biggest struggle was trying to figure out which of the many methods was the best way for me as an artist. Once I made up my mind, I decided to move forward with that method.

As several more years went by, I started offering three different styles of systems. It became clear to me that metallic flooring is an artistic system and the results are the maker's "artwork." I also discovered that with metallic floors, no two jobs are ever alike. Even if all my customers chose the same colors, the floors would differ in many ways and each would be unique.

Metallic floors are binders of randomly dispersed pigment. Since there is never such a thing as a level concrete floor, gravity is always pulling the product to the lowest level which creates movement, making each floor one of a kind.

Metallic floor benefits include:

- They are made with 100% solid epoxy.
- They have a 3-D appearance.
- Pigment bonds to the epoxy and is dispersed throughout the floor.
- Metallics are one of the most impact-resistant and durable floors you can install.

#### 100% in

A lot of people ask me what 100% solid epoxy means. It means the epoxy dries to the same film thickness it was when applied. Comparatively, if something is 60% solid, once the product dries, 40% is lost through shrinkage and evaporation. This 100% solid trait is what makes metallic epoxy so durable and impact resistant.

After implementing metallics for a few years, I became a true artist with the system. I soon realized that metallics were all I wanted to do because solid colors and chips didn't utilize my creativity. With solids and chips, there was either a right or wrong way to do things. But metallics drew on my artistic talent because no two floors were the same. There is no right or wrong art. You either like it or you don't. And I discovered that worldwide, my followers liked my art.

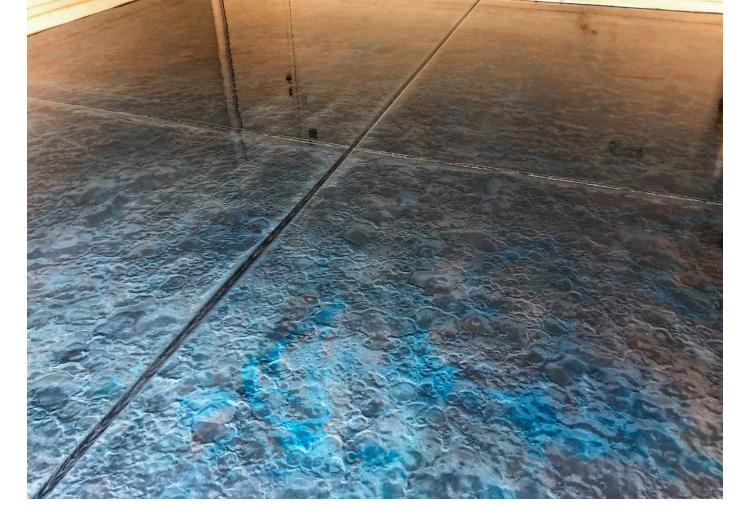
I share all the time. And I let customers know that when

it comes time for a metallic floor, they have to pick the artist whose style they like and not ask someone to imitate someone else's work. I find it disrespectful for a customer to ask me to try to copy someone else's style. If they like that person's work, they should hire him or her. I wouldn't know how to deliver their style just like they couldn't do what I do.









#### Metallic solo

In early 2018, I decided to make a radical business decision to only do metallics my way. While everyone in the industry thought I was nuts to only offer one style of floor system — and only offer a system that most people didn't even know about — I discovered that not only did people like the durability of my floors, but they were in awe of how my floors looked.

Fast forward to now. Other coating companies, homeowners, general contractors and architects from all over the world email and call me for my professional advice and thoughts. I take a lot of pride in the work I do. I post all my work on social media, and my combined total of followers is almost a million people.

Becoming a metallic specialist is the best decision I ever made.

Jon Kopp is founder, owner and operator of Quality Epoxy in Phoenix, Arizona. Check out his latest projects at FaceBook. com/QualityEpoxy and YouTube.com/ Quality Epoxy. Questions? Jon can be reached at qualityepoxy@gmail.com.





Seen here is a landfill where waste glass cullets are disposed. Photos courtesy of Kaveh Afshinnia

### Waste glass in concrete has advantages and disadvantages



Waste glass comes in a variety of sizes, from a fine powder and sand grain pieces to small and larger aggregates.

A CCORDING to a C.C.

Environmental Protection Agency report, the total amount of waste material has increased from 88 million tons in 1960 to 262 million tons in 2015. In 2015, 26% of the waste materials was recycled, 9% was composted, 13% was combusted with energy recovery and 52% was disposed of in landfills.

Among all the waste materials that have been recycled, batteries and steel are the most recyclable. Although glass is a material that can be recycled, just 34% of waste glass has been recycled. The main reason why collected mixcolor waste glass isn't recycled is due to its chemical composition.

Typically, glass containers consist of sand, soda ash, limestone and cullet. Sand is glass's main component and is its source of silica. Soda ash is added to the mixture to decrease the melting

temperature. The chemical compositions of different glass colors are slightly different which affect their melting temperature. Therefore, glass containers can't be properly recycled unless they're sorted based on their color.

Another reason why glass containers can't be recycled efficiently is the source of the waste glass. Usually, waste glass such as bottles or containers, are mixed during the collection process. To recycle collected waste glass, it needs to be sorted based on colors and types which is a very time-consuming and inefficient process.

Contamination is another reason why some waste glass containers aren't recycled. Any chemical residue, medicine or any other hazardous material needs to be removed before the recycling process.

#### Using glass as a pozzolan

Pozzolans are cementitious materials added to a concrete mixture to enhance its mechanical and durability properties. When grinded to a powder, glass is one of the natural pozzolans that improves concrete's fresh and hardened properties.

While concrete is in its plastic phase, glass powder will increase its workability, so less energy, cost and time are required to place and consolidate the concrete. While the concrete is in its hardened phase, concrete containing glass powder exhibits better strength, freeze-thaw resistance and sulfate resistance.

Glass powder can be used to replace portland cement, typically at a 10%-30% replacement level by weight. Portland cement production is one of the main sources for CO, emission. Incorporating waste glass in concrete as a portland cement replacement not only helps the environment by reducing the amount of CO<sub>2</sub> emission but also reduces the amount of waste glass disposed in landfills.

The size of the glass particles plays a crucial role in the pozzolanic performance of the glass powder. Concrete containing finer glass particles shows more promising mechanical and durability performance than that of concrete containing coarser particles.

#### Glass aggregates and ASR

Besides powder, waste glass can also be used as an aggregate in concrete in the form of fine or coarse aggregates. Since aggregates occupy approximately 70% of the concrete, using glass cullet as aggregate in concrete not only results in incorporating more waste glass in concrete but it also decreases the energy and time required to ground the glass particles into powder.

However, a mitigation method should be considered to suppress alkali-silica reaction (ASR) when glass aggregates are present in the concrete mixture. ASR is a chemical reaction between alkalis from portland cement and reactive aggregates within the concrete. The product of this reaction is ASR gel.



Seen here is ASR map cracking due to the presence of waste glass aggregate. The differences in the level of deterioration are due to the varied chemical compositions of colored glass. Typically, concrete containing green glass exhibits less distress due to the presence of chromium.

If moisture is present, ASR gel expands and causes the concrete to deteriorate. Glass aggregates are considered highly reactive aggregates due to both high alkali and silica content embedded in their microstructure (glass has approximately 70% silica and 15% sodium). Typically, concrete containing green glass exhibits less distress due to the presence of chromium.





Clear, blue, green and amber glass aggregates are sorted by color before using them in concrete.

#### **Eliminating ASR reaction**

There are several ways to eliminate the likelihood of deleterious ASR reaction in concrete containing waste glass aggregates. Using low-alkali portland cement and/or incorporating supplementary cementitious materials (SCMs) such as silica fume, fly ash, slag and metakaolin can mitigate ASR distress in concrete containing waste glass aggregate.

Among the conventional SCMs, silica fume and metakaolin are the most effective ones. Previous studies showed that using approximately 10% of either silica fume or metakaolin can mitigate the ASR distress in concrete containing 100% glass aggregates by almost 90%.

Glass powder can also be used as a SCM in concrete (i.e., replacement for portland cement) to mitigate ASR distress; however, it's not as effective as the conventional SCMs. For example, 30% of portland cement and 100% of aggregates can be replaced by glass

powder and glass aggregate, respectively, and no ASR distress is encountered.

The strength of concrete containing glass powder as a cement replacement material is approximately equal to that of concrete containing only portland cement. However, its durability properties outperform that of conventional concrete.

The strength of concrete containing glass aggregates is 10%-20% less than that of concrete containing mineral aggregates. This reduction in mechanical properties is due to the lower strength of aggregates as well as less bonding between the glass aggregates and the paste compared to the mineral aggregates.

Having said that, concrete containing waste glass can be used for indoor applications (where no exposure to aggressive materials and moisture are expected), sidewalks, pavement and curbs (where less strength is required). Using this type of concrete in indoor applications eliminates the presence of



The sample seen here contains 100% recycled glass aggregate.

water and, consequently, ASR distress.

It should be considered that using waste glass aggregates significantly reduces the concrete mixture's workability. The glass cullets' angular shapes negatively affect the concrete mixture's workability. Therefore, a superplasticizer is required to ease concrete placement and consolidation.

Research has shown that concrete containing waste glass aggregates has better abrasion resistance than conventional concrete containing mineral aggregates. Even if all the mineral aggregates aren't replaced with glass aggregate, the glass particles rise to the concrete's surface due to their lower density compared to mineral aggregates and the paste.

Dr. Kaveh Afshinnia, P.E., received his doctorate in repair and rehabilitation of concrete structures and infrastructures from Clemson University. He serves on several technical committees for the American Concrete Institute, has had several articles published in peerreviewed journals, and has presented at ACI conventions and international conferences. Kaveh has more than 12 years of experience designing new structures, as well as testing, evaluating and rehabilitating existing structures and infrastructures. Currently, Kaveh is a structural engineer for T.Y. Lin International in Alexandria, Virginia. He can be reached at (202) 276-8554 or kaveh.afshinnia@tvlin.com.





Photo courtesy of Yezco



The before and after of this slab of concrete is a great example of why more companies are choosing to go with a polished finish.

by Jennifer Faller

S polished concrete becomes more Amainstream for floors, it continues to gain momentum across the board. In fact, industry statistics show that polished concrete is now 15-20% of the total flooring installed each year.

For decades, most architects, general contractors and facility owners tended to lump floor covering/flooring and polished concrete into the same category — usually division 9 (finishes) because they didn't commonly consider the differences. Due to the flooring industry's significant efforts to educate (and provide proper specifications to) architects, contractors and owners, these client groups now (mostly!) categorize polished concrete and concrete flooring under division 3 (concrete), right where they belong.

#### **Defining the categories**

"Floor covering" and "flooring" are terms that generically describe any finish material applied over a floor structure to provide a walking surface. It's common for these terms to be used interchangeably.

The working definition for "concrete flooring" is an exposed concrete floor that provides a flat, durable finish and walking surface. It can appear utilitarian or architectural, depending upon the installation techniques and the finishing processes.

Some back story: for the greater part of a decade, architects and specifiers called out "polished concrete" as a type of flooring, but at that time, the product and process had no real standards. Contractors were bidding a variety

of processes that looked like shiny concrete, such as waxing, installing clear epoxy or acrylic sealer or, in some cases, even grinding, honing and polishing a concrete floor (the real deal).

These floors produced dramatically different results and square-foot pricing, ranging from \$0.50/square foot to \$7 or more. Imagine the confusion this caused about polished concrete. For the real polished concrete industry to survive, skilled polishers, technicians and vendors formed an association. Polished concrete was defined and standards were developed.

The Concrete Polishing Council, the industry's association, now agrees that polished concrete is a process of progressive grinding, honing, densifying and polishing that refines a concrete surface into an aesthetically pleasing, highly durable, light-reflective, dustproof, safe and functional floor finish. (https://ascconline.org/concrete-polishing-council/concrete-polishing-council-overview)

The CPC defines polished concrete as the act of permanently changing a concrete surface, with or without aggregate exposure, to achieve a specified appearance level. This definition was developed out of necessity! In fact, there are now three subcategories, as well: bonded abrasive, hybrid and burnished polished concrete.

Due to the increase of polished concrete's quality and number of installations, it's becoming important for floor covering contractors, designers, site owners and consumers to learn more about what it is, along with its pros and cons. With an agreed upon working definition of floor covering and polished concrete, we can now share some reasons why polished concrete is so popular and desirable and why it's replacing some of floor coverings' normal uses and is an accepted alternative.

#### A 'new' idea in flooring

Polished concrete is perceived as a new idea (flooring option), which back in 1996 it really was. Researchers have studied "idea generation" and they explain that ideas go through phases. Polished concrete now meets all four of these phases:

Make it relevant – Polished concrete has a certain relevant aesthetic and at the same time a casual attitude that attracts people. Designers are frequently making it their focal point. It can be integrally colored when it's poured or topically colored during the installation process.

**Prove it** – Since concrete is one of the most used building materials on the planet, it's frequently already scheduled as part of the building structure. Using what's already there becomes an easy choice, depending upon the use and image needed. Value engineering and sustainability are driving this desire, resulting in greater usage frequency, popularity and general acceptance.



Some big box stores are replacing VCTs with stenciled and polished concrete.

Large box retailers started using it in the late 1990s and, as of last year, Target made polished concrete a significant piece of its design concept. Target actually resisted polished concrete until it had proof that its customers would continue to shop in the stores without bright-white VCT, and that polished concrete is the right idea for stores like theirs. Target's conclusion was that polished concrete is saleable.

Make it safe – Polished concrete suggests a shiny floor, so there's always been a safety concern that it would be slippery, unsafe and, frankly, a liability. Since polished concrete has been in the mainstream of commercial building floor choices for more than 10 years, our clients have learned that it's a safe flooring choice and that people slip less for several reasons.

One is the visual difference. Ceramic tile or VCT floors remain the same color when wet. Since these floors don't wet out or darken, pedestrians can't readily see the changed condition. Conversely, since polished concrete has squillions of pores at the surface which absorb enough liquid to leave a visible darker area, pedestrians can see the change and react accordingly.

Extensive research has measured the coefficients of friction on a wide range of walking/working surfaces. Results clearly show that polished concrete is among the safest of floors, no matter the shine level or aggregate exposure level. This research was discussed at length in an article titled "New Research Says Polished Concrete is the Most Slip-Resistant Flooring" in the February/March 2014 edition of Concrete Decor magazine. (https://www.concretedecor.net/ decorativeconcretearticles/vol-14-no-2-feb-mar-2014/new-research-sayspolished-concrete-is-the-most-slipresistant-flooring/)

Show it is saleable – Finally, polished concrete is saleable, especially since becoming a top choice for the architecture and design community and the younger generations. Recently, two publications I get, a CB2 catalog and Modern Steel Construction, featured polished concrete on their covers. And Amazon shared that its distribution centers are polished (low sheen), durable, dustproof and highly functional.

Polished concrete has now met the criteria of all four phases of idea generation. It's relevant, there's proof it's an acceptable floor, it's safe, it's saleable and people like it. It's no longer a question of will it be used. It's more about where.

#### Plenty of plusses

Polished concrete is permanent, has a unique/natural look and once installed can't easily be removed. It can be covered with a floor covering or the surface can be physically abraded if a change is required. It's sustainable and may contribute points toward a LEED certification. It's highly durable and is ideal for high-traffic environments due to surface refinement during installation.

Additionally, the installation process results in a flatter/smoother floor and provides greater traction, making it a good choice for vehicular traffic, with less vibration to equipment, fewer employee injuries and easier level object placement. Polished concrete has a low life-cycle cost due to its permanency, ease of repair, maintenance and cleaning, making it more sanitary (no grout) as clean concrete won't act as a host for mold.

Polished concrete is breathable, which eliminates the MVER concern. However, it can still experience a temporary side effect from moisture drive called efflorescence which appears as a whitish powder on the surface.

Concrete also has a high-thermal mass providing inertia against temperature fluctuations and its ingredients are chemically inert and virtually noncombustible. It also doesn't emit VOCs during any part of its life cycle, and there's no "new polished concrete" smell. Polished concrete can even be a low-cost installation when in a larger footprint and can appear industrial or aesthetically beautiful.

#### Still, it's not for every job

Along with the many features and benefits of polished concrete, it's also important to understand when it's not the answer.

Polished concrete does not provide



Polished concrete can experience efflorescence from moisture which looks like a whitish powder. The side effect is temporary.

sound absorption, texture, luxury, incredible variety, warmth, comfort, cushion, design warmth, ability to cover up concrete problems, controlled manufacturing or predictable results.

Polished concrete also isn't well suited for continually wet surfaces, floors that are exposed to harsh chemicals, areas used for containment, spaces that require sound dampening, spaces that must be grounded, walk-off areas, or soft, extensively damaged or uneven slabs. Floor coverings or coatings need to be selected for these uses and when clients simply desire a floor covering.

#### Here to stay

There is room for all types of flooring and knowing these characteristics and having a well-versed understanding of both floor coverings and polished concrete flooring will better prepare you to discuss flooring options.

I'm proud of how far this industry has come in a short time. We've become better stewards of our craft, learned from our mistakes and believe in what we do. Those things have earned polished concrete a very good reputation. Polished concrete, when done right, is here to stay!

Jennifer A. Faller has been in the surface preparation and concrete chemical and polishing industries for the past 24 years. A decorative concrete contractor, technical consultant, trainer and owner of a distribution company, Jennifer has held polishing positions as a brand, product, project and business development manager, as well as vice president of operations, director of technical services and global account manager. Recently, she's an independent technical consultant at her firm, Concrete In-Site LLC. She also consults on behalf of other firms. Contact her at concreteinsite@gmail.com.

# STIFEL SHIELD YOUR CONCRETE

- Protects and guards against infiltration of water, salt and other chemicals that can cause freeze/thaw damage
- Penetrates deep into substrate, concrete and masonry micropores and capillaries
- Non-staining treated surfaces appear natural

# Prevent delamination, spalling and surface scaling

- Both solvent-based and Green Engineered™ water-based versions
- Protects against water and chloride ion-containing deicing salts
- Substantially extends the serviceable life of all exterior concrete surfaces
- Safe and easy to apply









WHAT CAN HAPPEN WITH AND WITHOUT STIFEL PROTECTION



chemical solutions to concrete problems

nox-crete.com | 402-341-2080 customerservice@nox-crete.com

# **Bringing Something to the Table**

by Stacey Enesey Klemenc

THERE'S a massive table in Asheville, North Carolina, crafted from precast GFRC and an 18-foot-long red oak log. Tipping the scales at 12,000 pounds, the elusive log alone took the men behind the table more than a year to find. And once they did it was "a bit of a dance" to make the table whole.

When the log was delivered, the furniture makers fashioned a base from it to support a 20½-foot-long precast concrete tabletop that tapers in width from 5 feet to 4. Figuring a log that size will take 10 years to dry out completely and will likely shrink in the process by as much as 10%, they built the tabletop with recessed spaces so it would sit on the base like a cap. The bolts that support the top can be adjusted to the desired height to compensate for the ensuing shrinkage. Problem solved.

The community dining table was installed in July 2019 as an integral part of a new program founded by









Jeremy French, formerly of Buddy Rhodes Concrete Products and Delta Performance Products. French left the decorative concrete industry in 2016 to start Making Whole, an apprenticeship program where men recovering from drug addiction learn how to make furniture ... and in the process discover the art of problem solving.

Focusing on teaching men in recovery how to make furniture from wood, metal and artisan concrete, the program supports up to 10 apprentices who work alongside French and two other full-time staff and a host of guest masters of craft.

Besides making furniture, the men cook lunch Monday through Friday and serve it up family style. Often, it's just the staff, some helpers and the apprentices. Sometimes, it's prepared under the guidance of gourmet chefs. And other times random people from the community pop in to help.

The most memorable event so far was a free concert held to raise awareness of the opioid crisis that attracted some 100 people. "We cooked a huge meal for everybody," says French of the crowd of folks ages 5 to 90. Music was provided by the Asheville Symphony Youth Orchestra and accompanied by an African drum ensemble that "just popped up," an odd mix that somehow meshed.

"This place just attracts crazy stuff like that," he says. "There's always something going on."

www.makingwhole.com

















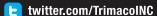


REMOVE



www.trimaco.com | 800.325.7356







Electronic Service Requested

Presorted Standard U.S. Postage PAID Permit No. 39 Lebanon Junction, KY

Sent to you by:



Sales ◆ Support ◆ Rentals ◆ Training ◆ Same Day Shipping



For more information email us at orders@cphq.net or call 1-888-799-CPHQ (2747) www.ConcretePolishingHQ.com Se Habla Español!



