

Defining a category

Understanding benefits & expectations is crucial

By Kacey Perinelli

In recent years, multilayer flooring (MLF), which includes rigid core flooring such as WPC and SPC, has become the most dynamic flooring category in the industry, taking share from other categories because of its multitude of performance benefits and stunning visuals. Yet, the exact definition of WPC and SPC continue to elude many consumers.

The term rigid core encompasses both WPC and SPC, as both have polymer cores that are rigid in construction. As per Piet Dossche, Shaw Industries' executive vice president of hard surface and USFloors' president, WPC represents the class of rigid luxury vinyl tile (LVT) flooring products with an expanded or foamed polymer core. SPC refers to the class of rigid LVT flooring products with a solid polymer core.

WPC then, said Dossche, has a "foamed up extruded core with built-in air pockets [that] provide superior comfort and

sound abatement" and is best suited for residential and light commercial applications. SPC has a "dense, highly mineral filled extruded core [that] provides superior indentation resistance" and is best suited for high traffic and commercial applications, he continued.

With both product types offering significant benefits, such as dimensional stability and waterproof capability, it is no surprise that many manufacturers are continuing to invest in both products. Resilient category manager for Shaw Floors, Jeff Francis noted that Shaw Floors will continue to invest in both platforms. "We'll continue to invest in both platforms because we see the value of both Floorté Classic and Floorté Pro. Each offer distinct advantages: Floorté Classic, our WPC product, offers warmth under foot and more comfort under foot, relative to SPC. Our SPC products, Floorté Pro, for example, have a higher PSI and more stability, which is suitable for even commercial use," he said.

Karndean Designflooring not only recognizes WPC and SPC in the rigid core category, but also EPC (expanded polymer core). "Rigid core is the overarching product category, with WPC and SPC as types of rigid core products. We also recognize EPC (expanded polymer core) as a type of rigid core product," explained Larry Browder, chief sales and marketing officer for Karndean.

The breakdown, according to Browder:

- WPC: "Combines reclaimed wood and/or bamboo powder, calcium carbonate and a vinyl binder."
- SPC: "Extruded solid with aggregates embedded in the PVC core. There is no middle LVT layer, less expansion and a higher PSI."
- EPC: "Lightweight, has better sound transfer ratings and better flexibility, and is softer underfoot."

Probably the most compelling benefit that rigid core products offer consumers is their waterproof nature. David Sheehan, senior vice president, product management, Mohawk resilient explained that heralding the waterproof nature of rigid core is likely what helped accelerate the category's growth

at such a rapid pace.

"Since the original technology [for rigid products] was used outside for decking it had to be waterproof or water resistant, so when manufacturers began to bring that type of technology indoors they began to advertise and leverage the waterproof nature of the product. This really helped drive market share gains by this technology because whereas flexible LVT was always waterproof in nature, the rigid category really put the stamp on it and began to yell and scream really loudly, 'hey this product's waterproof,'" he offered.

WPC DEFINED

The biggest challenge in terms of selling WPC or SPC is knowing the difference between the two products. WPC are products that feature an expanded polymer core and tend to be softer underfoot than their SPC counterparts.

Yon Hinkle, director, product, design and innovation for Armstrong Flooring, explained some of the particular materials that comprise WPC flooring. "WPC is a composite material made of thermoplastics, calcium carbonate, and may contain wood flour. Extruded as a core material, it is marketed as being waterproof, rigid and dimensionally stable. Some may call it 'wood plastic/polymer core,' while others refer to it as 'waterproof core.' WPC is typically characterized by a foamed core." Hinkle noted that WPC's thicker construction offers certain advantages, including the ability to better replicate textures for realistic wood looks.

According to Steven Ehrlich, vice president, sales and marketing for Novalis Innovative Flooring, "The most important benefit of rigid core LVT is the ability to hide most common sub-floor imperfections. A locking and floating construction makes installation easier and ensures a smoother finish. Because all rigid core is also waterproof, it can be installed in water-prone indoor areas, such as kitchens and bathrooms, with the right installation methods. The most important benefit of WPC is that it offers better acoustical qualities and is softer underfoot."

And WPC has its advantages over SPC. Explained Barron Frith, CFL North America's president, "The engineered aspect of WPC on the other hand in general allows a superior sound absorption versus SPC, because it is thicker and different materials absorb different frequencies. To some people, a thicker



Tarkett's Transcend SureSet is seen here in a stunning herringbone pattern with natural color variation.

"ALL RIGID CORE (OR MLF) PRODUCTS SHARE THE BENEFITS OF EASY INSTALLATION OVER SLIGHTLY IMPERFECT SUBFLOORS WITHOUT TELEGRAPHING, AS WELL AS LIMITED REQUIREMENTS FOR ACCLIMATION. ALL THIS MAKES FOR FASTER, LESS COSTLY AND EASIER INSTALLATION."

—HARLAN STONE, MFA

product also offers a nicer feel and a certain comfort of walk." Of course, he said, these are generalities and specifics will vary based on the manufacturer.

Application is also important when noting the difference between WPC and SPC. WPC is more often used in residential applications than is SPC, though WPC's stability does make it possible for it to be used commercially as well. "WPC is most at home in residential settings, although WPC products generally carry a light to medium commercial warranty," shared Jamann Stepp, vice president of hard surface for The Dixie Group.

SPC DEFINED

SPC by definition is a product with a solid polymer core, as opposed to one that uses foam in its construction. This product is denser and more dimensionally stable than its WPC counterpart, but does not necessarily have the same warmth and softness as WPC.

Hinkle explained the components of SPC. "SPC is known as 'solid polymer core' or 'stone polymer core.' SPC is comprised of limestone, polyvinyl chloride and plasticizers. SPC is still a waterproof product, but it adds greater stability, dent resistance and structure to vinyl plank flooring. SPC typically has a denser core and is generally more suitable for commercial installations," he said.

Novalis' Ehrlich noted that SPC uses minerals such as limestone or calcium carbonate in its construction. As to its defining characteristic, "SPC is best known for a resilient surface," he said, meaning that SPC offers better dent resistance and temperature stability than WPC.

"The fact SPC is a solid core with a higher proportion of limestone allows it in gen-

eral to be a lot more stable to temperature variations and sunlight (the main downside to WPC), and a lot more resistant to impacts and dents," shared Frith.

When explaining the difference in product promise, John Heckman, senior marketing manager, Tarkett, also mentioned the superior dent resistance of SPC. "All of these are waterproof. If indentation is important to you, Tarkett suggests you go with SPC or rigid core. If you're installing over an existing floor or ceramic tile, rigid core is the way to go. As long as the grout depth is within recommended range, there's no need to fill in the grout lines to prevent telegraphing. WPC does not have the same dimensional stability in those cases and normally requires the grout lines to be filled in for best results."

Sam Kim, vice president of sourcing for MSI, also touted SPC's benefits. He explained that there are differences between the two products, as well as many similarities, but that ultimately, he tends to prefer SPC. "WPC and SPC are both subsets of the rigid core category, which I like to call Vinyl 2.0," he said. "Both of these products have transformed the flooring industry, due to their hero attributes, such as waterproof, true-to-life look and feel, superb durability, fast installation, notably superior indentation resistance on SPC, and killer value. There are encyclopedias worth of details on which is better in which aspects, and how one may theoretically perform better than the other in commercial [versus] residential applications, but I like to take a step back and ask a simple question: What product delivers the best overall performance, best customer satisfaction, and best value? Objectively, researches indicate that SPC offers the magic combination of the three criteria most competitively."

And SPC can withstand exposure to extreme temperature changes in a way that WPC cannot. "SPC on the other hand is more indentation resistant, carries basically the same features and benefits as WPC but is less likely to expand and/or contract when exposed for long periods to extreme heat/sunlight and/or extreme cold. SPC is really the dual threat option in that it is 'right' at

home, work or play as it relates to installation options, durability, resilience and performance," commented Dixie's Stepp.

Harlan Stone, president of the Multilayer Flooring Association (MFA) added that SPC offers benefits commercially. "The SPC product category stands out by being harder and denser, which produced some benefits in commercial settings," he said.

LEARNING TO SELL

Ultimately, the biggest challenge with selling multilayer flooring products lies in the lack of understanding that surrounds the products, both for consumers and RSAs. And the category is changing and evolving at a rapid pace, so education about changes to the category needs to be continuous.

The constant changes in this category can make it difficult to learn which product is which, and ultimately make the sale. Jimmy Tuley, vice president of residential resilient for Mannington Mills offered that much of the confusion surrounding the MLF category stems from the speed of innovation that accompanies MLF.



Above, Coretec The Original from USFloors is showcased in a warm blend of brown and gray tones.

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"First off, this has been and continues to be a very confusing and complicated category because of the speed of innovation and the number of new players in the market," Tuley said. "It is incredibly important that we do as much education about this as possible to ensure the long life and the best uses of this growing category."

There was also some confusion surrounding acronyms in the MLF category previously, but the current consensus is that the acronyms for the product categories are WPC and SPC, with MLF and rigid core both encompassing both of these products. However, most flooring experts will agree that product understanding on the part of the RSA is crucial to ensuring consumers leave with the right floor for their needs. Armstrong's Hinkle explained, "While the acronyms were often used to identify components of the floors' construction — wood plastic (or polymer) core and stone polymer core — they can also serve as more broad identifiers: waterproof core and solid polymer core. As with any innovation, it takes a while for the industry to build consensus, but this is an important step to help create consistency and assist with educating customers about the flooring and its benefits."

It can be hard to sell a product when you aren't sure exactly what the product is that you are selling. Stepp noted that for a time it seemed as though new acronyms were being introduced constantly, but that this trend seems to have faded a bit since the formation of the MFA. "Until the formation of the MFA, the acronym naming convention seemed to have no end in sight. It was almost as if each week there was a supplier pushing their new three letter acronym to the market touting the waterproof composite core attributes of their product. Fortunately, the MFA today recognizes WPC and SPC. This is being done in an effort to educate the RSAs as well as the end-user, specifier and the consumer and to bring consistency to this category of flooring," he told *FCW*.

And some manufacturers are simplifying the process even further. Lindsey Nisbet, director of marketing, Swiff-Train Company shared that EarthWerks no longer divides the two product categories when marketing its rigid core products. "At EarthWerks we are doing what we can to educate the consumers, without overcom-

"THE SUPERIOR BENEFITS OF SPC HAS MADE IT THE FASTEST GROWING CATEGORY IN THE INDUSTRY. THESE PRODUCTS ARE MOST OFTEN OFFERED WITH AN ATTACHED PAD FOR COMFORT UNDERFOOT AND NOISE INSULATION. BECAUSE OF THE ADDED BENEFITS THE MAJORITY OF ENGINEERED FLOORS FLOATING FLOORS ARE BASED ON SPC TECHNOLOGY WITH ADVANCED FEATURES THAT INCLUDE HIGH DEFINITION VISUALS LIKE DEEP IN REGISTERED EMBOSS TO GIVE THE PRODUCT AN AUTHENTIC WOOD AND TILE AESTHETIC."

—ANA TORRENCE, ENGINEERED FLOORS

plicating the offering. Since both WPC and SPC are technically waterproof, rigid core products, we have combined them both into the Core Collection, which carries similar features and benefits at different levels of performance," Nisbet explained.

If the last few years are any indication of what the future holds, the category will continue to grow and evolve. However, confusion as to exact classification will likely continue to be an issue as products become more innovative, and the industry

strives to regulate the various offerings. In 2019, several new product offerings have been introduced in the market that have multiple layers but alternative cores that are not currently recognized by the MFA as MLF. Said Stone, "We the MFA are not currently directly involved in the alternative material products at this time, as our charter states, 'polymer cores.' But that being said, we are reviewing the developments in mineral cores to see where they might fit in the flooring ecosystems."



Pictured above is SolidTech from Mohawk, which includes natural graining and knotwork to make this floor truly look like real wood.