

PPG coatings bring hometown color, pride to world's tallest roller coaster



Pittsburgh's new Steel Curtain roller coaster finished with multiple PPG coatings.

Fans of the Pittsburgh STEELERS® are known as “the black and gold faithful.” So, when officials from KENNYWOOD® Park, Pittsburgh’s globally renowned amusement park, decided to build a *Steelers*-themed roller coaster, they knew celebrating those colors would be an essential part of the experience.

As the main attraction in *Kennywood Park’s* new *Steelers* Country area, the Steel Curtain roller coaster features four PPG coatings, including one in *Steelers* Yellow—a custom color that PPG formulated specifically for the project. Named after the team’s hall-of-fame defensive line, the ride features nine stomach-churning inversions—the most of any roller coaster in North America. The highest inversion, at 197 feet, is the world’s tallest and drops riders into a 205-foot plunge, reaching speeds of 75 mph.

A global project with home-grown roots

When it opened in July 2019, the Steel Curtain roller coaster united two of the Steel City’s most historic passions: fun and football. *Kennywood Park* has operated in Pittsburgh’s West Mifflin neighborhood for more than 110 years, and the *Steelers* have called the city’s North Side home for more than 85 seasons. When the two organizations joined forces to create a spectacular new centerpiece attraction for the famed amusement park, it was only natural that they would turn to PPG, a company based in Pittsburgh since 1883, to provide the coatings.

Jerome Gibas, general manager of *Kennywood Park*, said the goal was to use PPG coatings wherever possible throughout *Steelers* Country, which officials have billed as “an immersive land that celebrates the hard-hitting heroics” of Pittsburgh’s famous football team.

“Pittsburghers have a lot of pride in their city and, of course, their beloved *Steelers*,” Gibas explained. “It was important for us to implement pieces of Pittsburgh wherever possible in the new attraction areas of *Steelers* Country. Pittsburgh also is home to PPG, which has a rich history of exceeding performance expectations for amusement park applications. The partnership was a perfect fit.”

In keeping with its Pittsburgh theme and origins, many of the components for the Steel Curtain were supplied from the local area; however, the sheer size and scope of the coaster required much of it to be manufactured and coated at four international plants—two in Spain and one each in Turkey and Belgium—before it was shipped to and erected at *Kennywood Park*.

As a global paint manufacturer with a specific team dedicated to amusement park projects, PPG was able to meet the challenge of supplying coatings in identical paint colors, as needed, to all four international locations, as well as to suppliers in the United States.





“This project required a global supplier that could match colors exactly for multiple structural components finished with multiple coatings products across the globe,” said Shilpa Hareesh, PPG corporate account manager, amusement parks and entertainment groups. “Despite the inherent challenges that come with fabricating a large structure like this with multiple domestic and overseas vendors, tremendous cooperation among all the parties made everything work.”

Coatings for Every Surface: The Track

When riders get on the Steel Curtain, they travel across more than 4,000 feet of track, all of it primed and coated in the United States by specialty steel fabricator Intermountain Lift. Hareesh said the Utah-based supplier selected PPG AMERCOAT® primers and coatings for the track and lift-hill beams due to their ease of application and overall durability.

To complete the track and lift-hill beams, Intermountain Lift applied three layers of paint, using PPG *Amercoat* 68HS primer as the undercoat, PPG *Amercoat* 370 Pearl Gray coating as the intermediate layer and PPG *Amercoat* 450HS Black coating as the topcoat. Working as an integrated system, the coatings help shield the track from the abuse delivered by running cars at speeds of 75 miles-per-hour over its surface dozens of times each day, thousands of times each season.

Typically used on bridges and in marine applications, PPG *Amercoat* 68HS coating is a three-component, zinc-rich epoxy primer that provides outstanding corrosion resistance and fast dry times on steel structures. PPG *Amercoat* 370 coating is a high-build epoxy coating, which paired with PPG *Amercoat* 450HS aliphatic polyurethane-based gloss topcoat, provides exceptional levels of weather-, abrasion- and corrosion-resistance while maintaining the track's distinctive black gloss appearance.

The Cars

The cars that travel the Steel Curtain's looping track also are finished with PPG coatings. Striped and numbered to look like *Pittsburgh Steelers* uniforms, the fiberglass vehicles are decorated with PPG DELFLEET® FBC paint to look fast even when they're sitting still.



A Steel Curtain roller coaster car decorated with PPG DELFLEET® FBC paint.

Typically used in automotive applications to give vehicles a long-lasting gloss, PPG *Delfleet* FBC paint satisfied designers of the Steel Curtain by providing all the colors and finish options they would need. The product's advanced high-solids formulation also enables it to survive the vehicles' rigorous service lives, which makes it a perfect fit for a coaster named after one of the most famous defenses in football history.

The Superstructure

The most defining and visible element of the Steel Curtain roller coaster is its imposing steel structure and walkway. Specially formulated in *Steelers* Yellow, the coaster manufacturer chose PPG SIGMADUR™ coatings for their excellent finish quality and recoatability.

Less visible than the superstructure, but every bit as critical, the mechanical, electrical and vehicle chassis components of the Steel Curtain are protected with PPG's signature PPG PSX™ 700 coating. As a high-gloss polysiloxane coating, PPG PSX 700 coating can be applied directly over inorganic zinc primers to protect metal against an array of chemical and corrosion hazards. In addition to the Steel Curtain, PPG PSX 700 coating protects the structural metal for several other coasters at *Kennywood* Park, including the Sky Rocket, which is now the park's second tallest ride.



Finishing Touches

Once the Steel Curtain was erected, paint touch-ups were completed by Baynum Painting of Newport, Kentucky, a long-time PPG customer that specializes in amusement park projects. While park visitors had to wait until the July 2019 opening to ride the coaster, the team at Baynum Painting experienced all of its twists and turns many times over, using a combination of boom lifts and swinging spider baskets to put the finishing touches on its soaring steel superstructure. All the coatings used for touch-ups were mixed at a PPG PAINTS™ store in Pennsylvania.

About PPG Protective and Marine Coatings

PPG's protective and marine coatings (PMC) products protect customer assets in some of the world's most demanding conditions and environments, such as projects in energy, infrastructure and marine markets. PPG-PMC product lines include PPG PSX, PPG AMERLOCK®, PPG PITT-CHAR® and PPG HI-TEMP™ series.

To learn more about the PPG Protective and Marine Coatings business and its complete menu of solutions for amusement park and entertainment facilities, visit www.ppgpmc.com or call 1-888-9PPG-PMC.

About PPG Commercial Coatings

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The superstructure frame of the Steel Curtain features a *Steelers* Yellow color specifically formulated by PPG for this project.

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