

Anna Meares Velodrome, Queensland, Australia

The PPG PSX[®] two-coat system offers improved productivity, superior adhesion and abrasion resistance over traditional systems

Case study



Customer

Client	– Stadiums Queensland
Architect	– Cox Rayner Architects
Builder and EPC	– Watpac
Fabricator	– Beenleigh Steel Fabrications
Blasting and Painting	– Tranzblast Coating Services

Location

Brisbane, Australia

Challenge

To provide exceptional color- and gloss performance; an extended life cycle; and an outstanding finish to match the architects' vision

Solution

PPG SIGMAZINC[™] high-solids, zinc-rich epoxy primer PPG PSX[®] @ 125 µm patented, engineered siloxane coating

Benefits

The two-coat system delivered improved productivity compared to standard three-coat systems; three times the abrasion resistance of polyurethanes; two times the adhesion of epoxies; and reduced accumulation of dirt and mildew

Result

Our PPG PSX system's high-quality, cost-effective protective coating offered easy and efficient application. We worked closely with the builder and the architect to match the architect's vision and provided technical assistance to support the applicator and fabricator on-site

The Project

The Anna Meares Velodrome is located in Brisbane and is Queensland's first indoor velodrome. This new, breathtaking facility will attract training squads and competition events for cycling in Queensland.

Stadiums Queensland manages, operates and promotes the use of the stadium and other stadiums in Queensland. This stadium was built by German track architect and builder Ralph Schürmann, and constructed with their own, patented design to Union Cycliste Internationale (UCI) standard.

The Velodrome is notable for its large saddle-form roof, which covers an area of over 10,000 m². The large steel superstructure is clad on the walls and roof with a combination of opaque and translucent Tensioned Membrane Fabric designed to minimize the requirement for artificial lighting through the day and also to provide significant energy savings.

The Challenge

Stadiums Queensland was looking for a combination of exceptional color- and gloss performance with an extended life cycle that would reduce frequency of maintenance and repair. As befits such an iconic project, the system chosen would also have to produce a finish to match the architects' vision for this magnificent structure, which would satisfy the owner.



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The Solution

In order to meet the requirements of Stadiums Queensland, Watpac and Cox Rayner Architects, we proposed the PPG PSX two-coat system. Our solution was chosen, as it would provide long-term corrosion protection for the steel structure, along with a higher gloss finish, and greater color- and gloss retention, benefits that acrylic polysiloxanes and traditional polyurethanes could not offer.

The Benefits

Our PPG PSX system offers three times the abrasion resistance of polyurethanes, two times the adhesion of epoxies with reduced accumulation of dirt and mildew. Furthermore, the two-coat system provides improved productivity when compared to the standard three-coat system often used for these types of projects.

PPG PSX – Key Features and Benefits

- Superior gloss and color retention – reduced maintenance costs
- Excellent corrosion and chemical resistance – lower application time and downtime
- Abrasion resistance (3 x typical urethane) – lower applied costs
- Superior adhesion (2 x typical epoxy) – life cycle cost reduction
- Limited accumulation of dirt and mildew – Isocyanate-free
- Unlimited recoat window: wash, dry, and reapply – eases future touch-up and repair tasks
- Ultra-low VOC – significant reduction in solvent emissions and hazardous waste
- Meets ISO 12944 in a two-coat system – high solids = low odor
- Graffiti resistant – unlimited color palette
- Over 20 years' proven performance

The Result

Tranzblast Coating Services successfully worked through the challenges of the project, one being the very large roof trusses and the complexity of handling and painting such large items. Their facility was designed to effectively manage such large steel sections with improved productivity.



Cox Rayner Architects' amazing design and our PPG PSX system's advanced characteristics were a large factor in the coating's easy and efficient application. We played an integral part in linking the requirements of both the builder and the architect by providing a paint system solution allowing Tranzblast to deliver the required finish that matched the architect's vision. We also worked closely with the applicator throughout the project and provided technical assistance for the fabricator with on-site connection touch-ups.

A key outcome from this project was that it confirmed the need for a high-quality, cost-effective protective coating system that is easily achievable by the blast and paint yard without adding excessive costs into the project. As such, our PPG PSX system proved to be the ideal solution for this complex and important sporting structure.

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