

## Radial Quimica applies Huntsman polyurea in Maracanã stadium, Brazil, for FIFA world cup

The 2014 FIFA World Cup will be held in Rio de Janeiro, Brazil. One of the most highly anticipated sporting events in the world, it will bring the city unprecedented global visibility. In preparation for the games, the city established a consortium that would prepare the Maracanã stadium and viewing areas for the increase in volume and global attention.

The consortium, comprised of engineering and architectural experts charged with preparing designs and choosing contractors, initiated a frank debate around the best options for waterproofing the viewing area and stands. The viewing area included premium areas for lounges, boxes, offices, bars, and restrooms and the stands were awaiting more than 86,000 seats for the public.

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### Specifying polyurea

After consulting with leaders in the coatings market, the consortium established specifications and requirements around performance and extreme conditions. Collectively, the group was adverse to using polyurea, citing lack of success in tests already carried out on Maracanã's construction site and other local construction projects, which had been performed by improperly trained and uncertified operators.

To overcome those negative perceptions, **Radial Química**, a key **Huntsman** customer in Brazil, prepared demonstrations and field tests that tested polyurea's performance using comparisons and audit controls. Those tests yielded positive results for polyurea.

Radial's 40-year history of waterproofing specialisation, combined with Huntsman's polyurea technology and technical support, successfully showcased why polyurea was the best application for this project.

After vigorous competition and specification demonstration, Radial Química was chosen to apply 60,000 m<sup>2</sup> of pure polyurea to the stands and another 11,000 m<sup>2</sup> to the pedestrian walkway area. Near the stadium restrooms, bars, locker rooms, and lounges, 100,000 m<sup>2</sup> were applied, and Radial was one of three companies chosen to construct a polyurethane self-levelling floor with flake finish, sealed with polyaspartic varnish.

### Application

Construction began on 15 January 2013 and was required to be complete by 27 April 2013, when a test match was to be played in the stadium. In only 102 days (and many nights), through extreme heat and rain, Radial Química prepared the substrates and coated the stands and viewing areas with pure polyurea.

In preparation for the polyurea application, Radial Química developed specialised solutions to address the variety of substrates to be coated. Radial Química used six sets of **Gama** hydraulic equipment to spray the substrates with primers and fast-drying glues.

In the same time period of the Maracanã stadium work, Radial Química also completed simultaneous applications of 12,000 m<sup>2</sup> of pure polyurea, plus an additional 12,000 m<sup>2</sup> of thermal insulation in the Fédération Internationale de Football Association (FIFA) headquarters in downtown Rio de Janeiro; 5,500 m<sup>2</sup> of pure polyurea in the Shopping Plaza in the City of Niterói; and another 9,500 m<sup>2</sup> of pure polyurea in the Golden Square Shopping Centre.

"Radial Química's specialisation in pure polyurea coatings makes it possible for the company to carry out large-scale initiatives like the Maracanã stadium project," explained **Luis Eduardo de Mendonca**, Brazil PU Business Director, Huntsman Polyurethanes. "The company has ten mobile machines with the required accessories, a centre for preparation and employee training, a laboratory, and an expert technical team."

### Adresse:

<http://www.gupta-verlag.com/general/news/technology/14348/radial-quimica-applies-huntsman-polyurea-in-maracan%C3%A3-stadi>