On the occasion of the soccer World Cup, that was taking place in South Africa, the city of Cape Town built a new landmark: Green Point Stadium, also known as the “Glass Pearl” of Cape Town, stands at the foot of Table Mountain in the renowned Victoria and Alfred Waterfront in a spaciousy arranged park. The namesake of the stadium is the Cape Town suburb of Greenpoint, in which it is built. Because of its central location you can reach the stadium easily by foot from the town centre. At least the combination of architectural finesse, a central location and sparkling stadium sports atmosphere make the Green Point Stadium to one of the highlights of the 2010 World Cup and every vacation to South Africa.

In the sophisticated roof construction technical elements such as roof lighting and sound systems are integrated. After completion of construction, the stadium with its 45 meter high circle is able to give at least 68,000 enthusiastic football fans the opportunity to witness first hand stunning games like the World Cup 2010 with its incredible crackling atmosphere. 1,800 spaces were planned as luxurious business seats and 1,500 as VIP and press seats. All the seats are arranged on three tiers, which makes it possible to have a fantastic view over the game.

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**stadium facts & numbers**

- **name:** Green Point Stadium
- **city:** Cape Town
- **capacity:** 68,000
- **construction project:** new construction
- **completion:** 2009
- **costs:** approximately 3.85 billion Rand
- **height above sea level:** 10 metres
- **geography:** situated between Table Mountain and the Atlantic Ocean

**a new landmark for the Cape**
Phase of planning, production & construction in close cooperation

Thiele Glas was commissioned with the production of approximately 38,000 m² of TG-PROTECT® glass for the roof. The roof construction is a combination of a suspended roof with a radial binder system. This undulating roof is covered with safety glass, for which an estimated 11,000 panes of glass are required to complete the different segments of partitioned construct. The TG-PROTECT® that was used consists of 2 x 8 mm of TVG® with a special enamelling. At least every pane had to be produced individual, as there were planned a maximum of two equal panes in the complicated roof construction.

The whole production process at the biggest Thiele Glas site in Wermsdorf took about nine months and the involved people were fully trained according to the requirements. Also the delivering of the panes was a huge logistical challenge. The segments had to be carefully packed and shipped in order to ensure a trouble-free installation, which was realized to the absolute satisfaction of the client.

The entire project required an elaborate planning and logistics of all participating companies. Glasbau Gipser was responsible for the installation of the glasses. Therefore a glass holding system had to be developed, produced, delivered and installed. Glasbau Gipser at least realized the whole glass holder construction for the roof of the stadium and installed the high quality laminated safety glass, that was produced by Thiele Glas.

glass
facts & numbers

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partnership
construction

cooperation and project details
Glasbau Gipser was tasked with developing a 4-sided glass storage under special constructive requirements (with maximum deformation ≤ $\alpha_0,93$). The supporting profiles made of ethylene-propylene-diene rubber were based on the technical guidelines for line-shaped glass and constructed as an overlapping drainage system. To enable more securement special spacer made of polyoxymethylene were applied depending on the degree of deformation. The suction loads are regulated through clamping plates and the external sealing planes were realized from HTV silicon tapes.

**Glasbau Gipser**

**Static:** Lehmann & Keller Ingenieure GmbH, Lauffen

**Development period:** 2008 - 2009

**Delivery of system components:**
- 50,000 m EPDM profiles
- 77,000 spacer
- 77,000 clamping covers
- 50,000 m HTV silicone profiles