



SAINT PETERSBURG STADIUM

A NEW SAFE AND HIGH-TECH HOME
FOR THE 2018 FIFA WORLD CUP





The Saint Petersburg Stadium is an innovative modern football stadium built in St. Petersburg to be the home of the FC Zenit soccer team and to host international events, such as the 2017 FIFA Confederation Cup and the 2018 FIFA World Cup.

The project provided a comprehensive improvement of the territory of the Western part of the Krestovsky Island. Today the stadium is recognized as the highest one in Russia: its height without pylons is 75 m, which allows combining high capacity with excellent visibility. The author of the project is the Japanese architect Kisho Kurokawa.

The stadium is intended to be multi-purpose and used all year round. The capacity of the complex is now approx 68,000 seats and the total area of the project is 287,600 square meters.

NEW TECHNOLOGIES

The new stadium sports the most advanced technologies. It is probably the most technologically sophisticated stadium in Europe. It also has a special rolling-out field: the football pitch is able to «travel» outside the arena on special rails, so that it can be ventilated. This solution can be explained by the fact that weather conditions in St. Petersburg are not suitable

for the growth of grass in winter, and the city is the northernmost member of the Russian Premier League. This technology keeps the surface quality at high level. Moreover, the roof of the stadium is able to slide and cover the field during bad weather and the cold season. The entire set of engineering solutions used at the facility makes it not only one of the most high-tech stadiums in the world, but also a very safe and most convenient one for visitors.

The construction works have already been completed. Now we should wait for the World Cup 2018 to see the stadium in action.

MAPEI SOLUTIONS FOR THE PROJECT

Mapei products were involved in the levelling of the stands substrates, the preparation of the substrate in common areas and the technical support for the installation of the stone covering. Mapei proposed a comprehensive approach to create a high-quality surface, in line with the level of the project.

It is important to note that during the construction of the stadium, 486 thousand cubic metres of concrete were used. Since construction works started 10 years ago some old concrete areas needed repair and Mapei experts proposed MAPEGROUT 430 fine-grained, fibre-reinforced, normal-



LEFT. The Saint Petersburg Stadium after the completion of works. The new stadium which will host the 21st FIFA World Cup, is characterized by its high level of technology: a retractable roof and a rolling-out field, to mention a few.

BELOW. Mapei products have been used to repair and level the concrete, to prepare the substrates of the stands and for installing natural stone.

IN THE SPOTLIGHT ULTRAPLAN

Self-levelling, ultra quick-hardening smoothing compound with very low VOC for thicknesses from 1 to 10 mm. ULTRAPLAN is used in interiors for levelling and smoothing differences on new or existing substrates, preparing them to receive all kinds of flooring where a high resistance to loads and traffic is required.



setting thixotropic mortar for levelling and repairing concrete structures. Thanks to this product it is possible to eliminate any surface defects and fill rigid joints. In the hardened state, MAPEGROUT 430 is a medium strength mortar that has excellent adhesion to steel and concrete, as well as high water resistance.

To eliminate the defects of concrete surfaces, the one-component cementitious mortar MONOFINISH was used. MONOFINISH is characterized by high mechanical strength, provides an ideal grip with all concrete surfaces and forms a durable coating.

In order to prepare the stands substrates for laying the subsequent coating, PRIMER G, a water dispersion primer based on synthetic resins, was used. After drying, it forms a thick film that reduces water absorption of porous substrates and strengthens them. For levelling off the stands substrates, ultra quick-setting, self-levelling very low VOC mortars ULTRAPLAN and ULTRAPLAN ECO were used on an area of respectively 2,500 m² and 300 m².

When facing the 400 m² of the common areas, for the 60x60 cm ural granite slabs the builders chose KERABOND T, a cementitious adhesive without vertical slip, KERACOLOR FF grout and ULTRACOLOR PLUS mortar, both high-quality, cement-based, polymer-modified products with water repellent DropEffect[®], which makes joints less prone to dirt collection and more durable.

The arena is now set to be ready and waits for the upcoming sports events: stay tuned with us for the 2018 Football Cup!

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TECHNICAL DATA

Saint Petersburg Stadium,
Saint Petersburg (Russian Federation)

Period of Construction:
2006–2017

Period of Intervention by Mapei: 2016

Intervention by Mapei:

supply products for concrete repair, for substrate preparation, for the installation and grouting of stone materials

Client: City Administration of Saint Petersburg

General Contractor:
Metrostroy

Mapei Distributor: X-Trade

Designer: Kisho Kurokawa,
Mosproject-4

Mapei Coordinators: Denis Krutilin (ZAO Mapei)

MAPEI PRODUCTS

Repair and level of concrete structures: Mapegrout 430, Monofinish

Substrate preparation: Primer G, Ultraplan, Ultraplan Eco
Installation of ural granite: Keracolor FF, Kerabond T, Ultracolor Plus

For further information on Mapei products see www.mapei.ru and www.mapei.com