



Bratislava (Slovakia) National Football Stadium

MAPEI ADMIXTURES FOR CONCRETE AND SYSTEMS FOR VINYL INSTALLATION IN A CUTTING-EDGE SPORT VENUE

The newly built football stadium at Tehelné pole (also called “National football stadium”) meets the requirements of UEFA and is equipped with modern technologies: it not only enhances the sports experience, but also ensures the safety of its visitors. The stadium is designed for hosting the Slovak national football league matches (it is home to the players of the Slovan Bratislava club), national football events as well as concerts and cultural events, with a capacity of 22,500 spectators. The complex also includes a hotel, office space and apartments and meets the standards of modern buildings, with special attention paid to eco-sustainability and energy efficiency.

The challenges for the concrete

The main structure of the stadium and its adjacent buildings is made of a combination of cast concrete and

precast concrete elements. “The stadium at Tehelné pole is exceptional in its importance at the sporting level, but also as for the investor’s construction requirements. The fact that the building had to be completed in the city influenced its construction, including concrete casting,” claims the management of Frischbeton (a division of Strabag) which supplied the concrete for the new stadium. Thanks to the use of the most suitable concrete mix, the service life of the new stadium at Tehelné pole is expected to be at least 100 years. Concrete was used not only in the foundations, but also in the main structure of the stadium and in the adjacent buildings. The construction work was complex due to the urban environment, the pressure to meet deadlines, and adverse weather conditions. However, the concrete manufacturer benefited from a close

partnership with Mapei experts, who worked with Frischbeton to create the most suitable concrete formulation. The use of Mapei admixtures for concrete, such as superplasticizers (DYNAMON PCT 629), air-entraining agents (MAPEAIR LP100), accelerators (MAPEFAST CFI) and retardants (MAPETARD VZ) distributed in the Slovak market by Mapei SK sro, ensured an excellent workability of the concrete which, in turn, enabled to meet the contractor’s quality requirements and time schedule. The contractor and the concrete manufacturer especially appreciated Mapei’s technical support, which ensured regular quality checks of the concrete, site inspections and fast problem solutions.

Vinyl floors for the changing rooms

Vinyl floorings were chosen for the changing rooms as they can ensure excellent aesthetic impact, durability and easy maintenance. The first step was to treat the substrates with PRIMER G synthetic resin-based, water-dispersion primer, to improve the adhesion of the following layers. ULTRAPLAN RENOVATION self-levelling compound was applied thereupon, to ensure high resistance to loads and traffic. The vinyl flooring was then bonded with ULTRABOND ECO VS90 PLUS, hard set, highly shear resistant, wet-bed dispersion adhesive with a very low emission level of volatile organic compounds (VOC).

ABOVE. The National Football Stadium in Bratislava is an ultramodern sport facility that was completed with Mapei admixtures for concrete.

ULTRABOND ECO VS90 PLUS

Universal, high temperature adhesive for resilient floor coverings

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TECHNICAL DATA

National Football Stadium, Bratislava (Slovakia)

Period of construction: 2013-2019

Period of intervention: 2017-2019

Owner: Národný futbalový štadión, a.s.

Intervention by Mapei: supplying admixtures for concrete, products for

substrate preparation and installation of vinyl floorings

Concrete producer: Frischbeton s.r.o.

Design: Karol Kállay

Main contractor: Strabag

Installation of vinyl floors: Ekopol, spol. s r.o.

Mapei coordinator: Ján Fleischhacker, Mapei SK s.r.o (Slovakia)

Photos: Martin Matula

MAPEI PRODUCTS

Preparing substrates:

Ultraplan Renovation,

Primer G

Installing vinyl floors:

Ultrabond Eco VS90 Plus

Admixtures for concrete:

Dynamon PCT 629*,

Mapeair LP100*, Mapefast

CFI*, Mapetard VZ*

*These products are distributed on the Slovak market by Mapei SK s.r.o

For further information on products: mapei.com mapei.sk