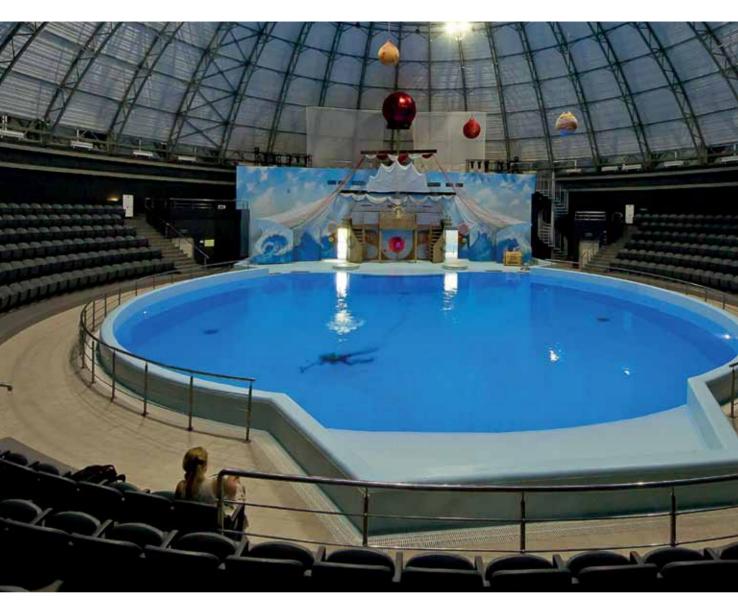
# PROJECTS WATERPROOFING SUBSTRATES AND INSTALLING CERAMICS





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# MAPEI SOLUTIONS FOR THE **POOLS**

During the construction of the Dolphinia dolphinarium, special requirements were set regarding the quality of the materials used for waterproofing and building the aguariums and pools, because of the aggressive effect of salty seawater on the facilities. The use of several Mapei solutions in the pools ensured not only the durability of structures and their resistance to aggressive agents, but also environmental safety for the fishes and marine animals.

During the works, the Mapei technicians faced a number of complex problems. It was necessary to select suitable materials that could guarantee quality anchoring of embedded elements in the basins, reliable waterproofing of substrates, proper preparation of surfaces before installing ceramic tiles and mosaics, and durable grouting of joints.

The anchoring of the embedded parts in the basins was carried out using MAPEFILL 10, a high-flow, non-shrink, cementitious anchoring grout. This product, which is manufactured and distributed in Russia by ZAO Mapei, forms high-strength mortar with excellent resistance to frost and water.

12 tons of TOPCEM PRONTO ready-touse, normal-setting, controlled-shrinkage mortar with high thermal efficiency were used to build quick-drying screeds for the pools.

MAPEBAND rubber tape with alkaliresistant fabric was used for waterproofing corners between adjacent walls and between walls and floors before applying MAPELASTIC two-component, flexible cementitious mortar for waterproofing the basin of the pool used for the shows, as well as the substrates in the pools for swimming with dolphins and those for walruses and seals.

Substrate levelling on the walls of the swimming pool was carried out using NIVOPLAN PLUS, a levelling compound which is manufactured and distributed in Russia by ZAO Mapei, which was admixed with PLANICRETE synthetic rubber latex to improve its adhesion and mechanical properties.

As for the installation of mosaic and ceramic tiles in various areas of the facility, ZAO Mapei proposed several highperformances solutions. ULTRALITE S1, deformable, lightweight cementitious adhesive with no vertical slip, long open time, Low Dust technology and extremely high yield, was applied in the basin of the pool for swimming with dolphins



ABOVE. The pool used for shows was completed using MAPEBAND and MAPELASTIC for waterproofing the substrates and GRANIRAPID for bonding ceramic tiles. RIGHT. The substrates of the pool for swimming with dolphins were treated with NIVOPLAN PLUS+PLANICRETE and MAPELASTIC before installing ceramic tiles with ULTRALITE S1.

### IN THE SPOTLIGHT

#### **TOPCEM PRONTO**

It is a pre-blended, ready-to-use mortar with normal setting and controlled shrinkage, based on a special hydraulic binder and graded aggregates. It is ideal for forming unbonded and bonded screeds on new and existing slabs in interiors and exteriors prior to installing wood, PVC, linoleum, ceramic tile, natural stone, carpet or other floor coverings in areas where fast-drying screeds are required in order to complete floorings in a short time. TOPCEM PRONTO is characterized by high thermal conductivity which makes it particularly suitable for laying heated screeds. Screeds prepared with TOPCEM PRONTO in accordance with the specifications described in its technical data sheet are classified as CT-C30 -F6-A1, in compliance with the European standard EN 13813.

and in the adjacent areas.

GRANIRAPID two-component, deformable, quick-setting and drying cementitious adhesive was used to bond ceramic tiles on the surfaces subjected to heavy loads, such as in the area adjacent to the pool for shows and the walrus pool, as well as in the dolphinarium hall

KERABOND cementitious adhesive was used to install ceramic tiles in the remaining areas of the facility, after admixing it with ISOLASTIC elasticising latex to form a highly deformable mix with extended open time.

ULTRACOLOR PLUS anti-efflorescence mortar with water-repellent DropEffect® and mould-resistant BioBlock® technology was selected for grouting tile joints in the basin of the pool for walruses and seals and in the adjacent area, as the product is able to offer high protection against mould.

This article was taken from Mir Mapei, no. 22, the magazine published by ZAO Mapei, whom we would like to thank.



# **TECHNICAL DATA** Dolphinia Dolphinarium, Novosibirsk (Russia)

**Period of construction:** 2014-2016

**Period of the Mapei intervention:** 2015-2016 Client: LLC "Aquatoria" Design: JSC "Engineering" Main contractor:

LLC "PSO ASK"

Installation company: LLC "PSO ASK"

### Mapei distributor:

TRITON (New Construction Technologies)

Mapei coordinator: Eugene Lebedev, ZAO Mapei (Russia)

# **MAPEI PRODUCTS**

Anchoring works: Mapefill 10\* Preparing the substrates: Topcem Pronto, Nivoplan Plus\*+Planicrete Waterproofing the pool basins: Mapelastic, Mapeband Bonding mosaic and ceramic tiles: Ultralite S1, Granirapid, Kerabond + Isolastic

Grouting joints: Ultracolor Plus

\*These products are manufactured and distributed on the Russian market by ZAO Mapei.

For further details on products visit www.mapei.com and www.mapei.ru