SIKA AT WORK

Serafeio Swimming Pool, Athens, Greece

MORTAR PRODUCTION: SikaLatex® Max
WATERPROOFING: SikaTop® Seal-107 SH
REHABILITATION: SikaRep®-300 Classic
TILE ADHESIVE & TILE GROUT: SikaCeram®-243 UltraFlex, SikaCeram® EpoxyGrout
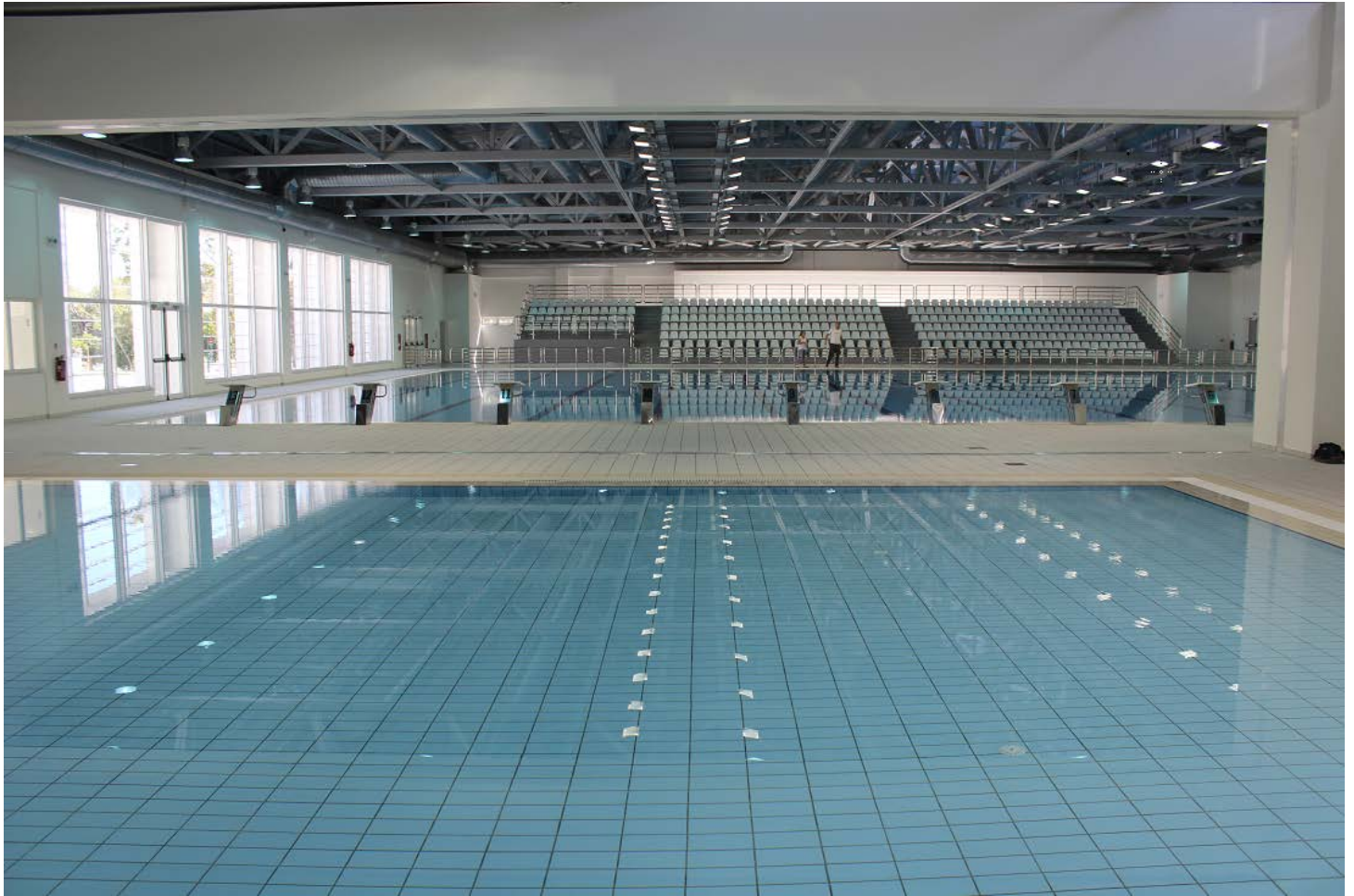EPOXY TILE GROUT REMOVER: SikaCeram® EpoxyRemover

BUILDING TRUST

SERAFEIO SWIMMING POOL, ATHENS, GREECE

PROJECT DESCRIPTION

Serafeio swimming pool is a major sports and cultural center for the city of Athens. It is located at the junction of Piraeus and Petrou Rallis streets and is a modern swimming pool with facilities that can accommodate cultural and innovative workshops. The pool was constructed at the site of the old Serafeio swimming pool, which was irreparably damaged by the earthquake of 1999. In 2001 it was decided to demolish it and construct a new swimming pool in the same place.

The complex of Serafeio, on an area of 18 acres, includes:

A) the swimming pool (a pool of semi-Olympic dimensions, a children's pool and changing rooms with a total area of 2,800m^2)

B) two buildings (one three-storey ~2,300m^2) and a ground floor of 1,290m^2), which will accommodate the other activities

C) three existing open basketball courts

D) special space to feature the findings of the archaeological excavation

E) 97-overground parking seat area

F) 46-underground parking seat area

APPLICATION DEMANDS

For the construction of such a center, a multitude of products and systems were required in a wide variety of applications, such as for mortar production, waterproofing, rehabilitation, tile bonding and tile grouting. Especially with regard to the swimming pools of the center, the selected waterproofing system was the combination of cementitious waterproofing mortar with tile bonding. Therefore, the products to be used for this application should withstand permanent immersion in chlorinated water and contraction-expansion movements.

SIKA SOLUTION

Mortar production: For the production of mortar mixes for the pool that would feature high flexibility and increased waterproofing properties, SikaLatex® Max mortar admixture was used.

Waterproofing: The 2-component, cementitious-based, waterproofing mortar SikaTop® Seal-107 SH was used to waterproof the whole surface of the pool. It is a special composition mortar (modified with polymers) and offers the advantage of brush application.

Concrete rehabilitation: The restoration of the initial geometry of concrete elements was carried out using the 1-component, cementitious mortar SikaRep® Classic.

Sika®

Removal of epoxy grout was performed with the special product SikaCeram® EpoxyRemover.

Tile bonding and tile grouting in pools, locker rooms & WC: In all areas that tiles would be bonded, the surfaces were prepared using suitable primer. The 1-component, cementitious tile adhesive SikaCeram®-243 UltraFlex, class C2TES1 according to EN 12004 was used for tile bonding on all surfaces. An important advantage during the selection of the specific tile adhesive was the fact that it was used not only for the pool environment, but also for tile bonding on plasterboards (frequent compression-expansion and increased deformability). Tile grouting was performed using the epoxy tile grout SikaCeram® EpoxyGrout with increased resistance to chemicals.

PRODUCT QUANTITIES:
Mortar production: Sika LatexMax®: 5.7 tns
Concrete repair mortar: SikaRep® Classic: 1.6 tns
Waterproofing mortar: SikaTop® Seal-107 SH: 5.0 tns
Tile adhesive: SikaCeram®-243 UltraFlex: 17.5 tns
Tile grout: SikaCeram® EpoxyGrout: 2.9 tns
Epoxy tile grout remover: SikaCeram® EpoxyRemover: 1.0 tn

PROJECT PARTICIPANTS:
General contractor: **ERETVO S.A.**
Applicator: **OSMO – Afoi Vitali & Co**

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