

# SIKA AT WORK WATERTIGHT UNDERGROUND CONCRETE CONSTUCTON IN WROCŁAW CENTER FOR REHABILITATION AND SPORTS MEDICINE

SIKA TECHNOLOGY: Sika® Watertight Concrete System



# WATERTIGHT BELOW GROUND LEVEL CONSTRUCTION IN A MODERN MEDICINE FACILITY

### WROCŁAW CENTER FOR REHABILITATION AND SPORTS MEDICINE

is one of the most modern medical centers in Poland. On the area of about 12 700 m<sup>2</sup>, a rehabilitation center, a hospital with operating rooms and a diagnostic center will be located. The newly built medical facility in Wrocław will provide both daily rehabilitation services and surgical procedures allowing the assistance of even greater number of patients - the hospital will support from 1500 to 1800 people every day. The Center will also offer patients specialist clinic and a comprehensive diagnostic laboratory.



### **PROJECT** REQUIREMENTS

The underground concrete structures needed to be fully watertight to prevent damage due to moisture or water ingress into rooms located below ground level.



# HIGH QUALITY CONCRETE MIX: SIKA® WATERTIGHT CONCRETE **SYSTEM**

### **SIKA SOLUTIONS**

To meet the requirements of overall tightness of the underground construction, "white box" technology was used. The "white box" is a system consisting of a complete watertight concrete mix design (Sika® Watertight Concrete) together with appropriate joint waterproofing solutions. To ensure the appropriate level of watertightness, it also provides general recommendations and guidance on the concrete mix design, construction and concreting.

The "white box" technology has the additional advantage of relatively simple and fast installation without additional protection of the waterproofing materials being required. This is therefore also an extremely cost efficient solution.

For the construction of underground structures, Górażdże Beton supplied about 1100 m³ of Sika® Watertight Concrete – it is a special, high-quality concrete mix which is impermeable to water. In this project the concrete mix was modified by the following concrete admixtures:

- superplasticizer Sika® ViscoCrete® 3088 M
- crystalline and pore blocker Sika® WT-200 P.

Sika® WT-200 P consists of special components. These active components form non-soluble materials throughout the pore and capillary structure of the concrete and seal the concrete permanently against penetration of water.











## PROJECT PARTICIPANTS

Owner: Hasco-Lek

 $\textbf{Investor:} \ \mathsf{MEDICO}\text{-}\mathsf{INWESTMENT} \ \mathsf{Sp.} \ \mathsf{z} \ \mathsf{o.o.}$ 

**Architect:** APA HUBKA **Main Contractor:** Awbud

**Contrete Supplier:** Górażdże Beton **Sika Poland engineer**: Kamil Morga

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