



# SIKA AT WORK

## WATERTIGHT UNDERGROUND CONCRETE CONSTRUCTION IN A NEW TCHIBO PLANT IN MARKI, NEAR WARSAW

SIKA TECHNOLOGY: Sika® Watertight Concrete System

BUILDING TRUST





# ENLARGEMENT OF TCHIBO PLANT IN MARKI REQUIRED HIGH-QUALITY SOLUTIONS

**TCHIBO MANUFACTURING POLAND SP. Z O. O.**, the Polish unit of the German coffee producer, is enlarging its plant in Marki, near Warsaw. A new production hall of 3 600 m<sup>2</sup> of surface will contain two fully automated coffee production lines, including a line to package instant coffee in jars. The investment will increase the role of the Polish unit.



## PROJECT REQUIREMENTS

To eliminate the necessity of applying additional protective coatings, it was of utmost importance to provide efficient watertight basement solutions as well as waterproofing the elements of the sedimentation tank. The whole construction required extreme watertightness in order to protect underground structures from water ingress and prevent damp and sewage from the sedimentation tank from polluting local waterways.

# HIGH QUALITY CONCRETE MIX: SIKA® WATERTIGHT CONCRETE SYSTEM

## SIKA SOLUTIONS

To meet the requirements of overall tightness of the underground construction, a system consisting of a complete watertight concrete mix design (**Sika® Watertight Concrete**) together with appropriate joint waterproofing solutions was used. To ensure the appropriate level of watertightness, general recommendations and guidance on the concrete mix design, construction and concreting were provided. **Sika® Watertight Concrete System** 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 and concrete elements of the sedimentation tank in a Tchibo new plant, Górażdże Beton supplied about 800 m<sup>3</sup> of **Sika® Watertight Concrete** – it is a special, high-quality

concrete mix which is impermeable to water.

To achieve such quality, crystalline and pore blocker **Sika® WT-200 P** was used. **Sika® WT-200 P** consists of special active components which form non-soluble materials throughout the pore and capillary structure of the concrete and seal the concrete permanently against penetration of water.

In this project, in order to fulfill all concrete mix requirements including a proper water-cement ratio and maintaining the intended consistency, the concrete mix was modified by the following concrete admixtures:

- superplasticizer **Sikaplast®-2508**,
- plasticizing admixture **Plastiment® BV 3 M**
- air entraining admixture **Sika® LPS V**







#### PROJECT PARTICIPANT

**Owner:** Tchibo Manufacturing Poland Sp. z o. o.

**Investor:** Tchibo Manufacturing Poland Sp. z o. o.

**Main Contractor:** Pekabex

**Concrete supplier:** Górażdże Beton

**Sika Poland engineer:** Mirosław Tołkacz

Our most current General Sales Conditions shall apply.

Please consult the most current local Product Data Sheet prior to any use.



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