

# The "Marynarska 12" Office Complex

WARSAW - POLAND

## KEY FACTS

- High quality office building to be eco-certified with BREEAM
- More than 16 000 m<sup>2</sup> of underground waterproofing with MAPEPROOF



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Let's present the project...

The demand for office spaces in Warsaw is invariably high. This fact reflects on consecutive investments which sprang like out of nowhere. In the first half year of 2012, in the capital city, nearly 300 thousands m<sup>2</sup> of office spaces have been let. In the Służewiec district, in Marynarska street, in the proximity of Galeria Mokotów and the Chopin Airport, springs up another office block. The contractor is a Belgian developer Ghelamco which operates on the capital city market. The part of Warsaw which hosts this investment is a business quarter which grows with a substantial dynamic. The "Marynarska 12" project is due to consist a combination of an office complex with a commercial and service facilities of the total area amounting to 40 000 m<sup>2</sup>. The complex is divided to 8 above-ground floors and additionally, it is anticipated to have 3 underground storeys. The project includes also a parking lot for 1400 spaces and a green patio. The construction is performed according to the demands of an ecological certificate called BREEAM, granted only to structures of high standard environmental protection. The building completion is expected for the mid 2013.

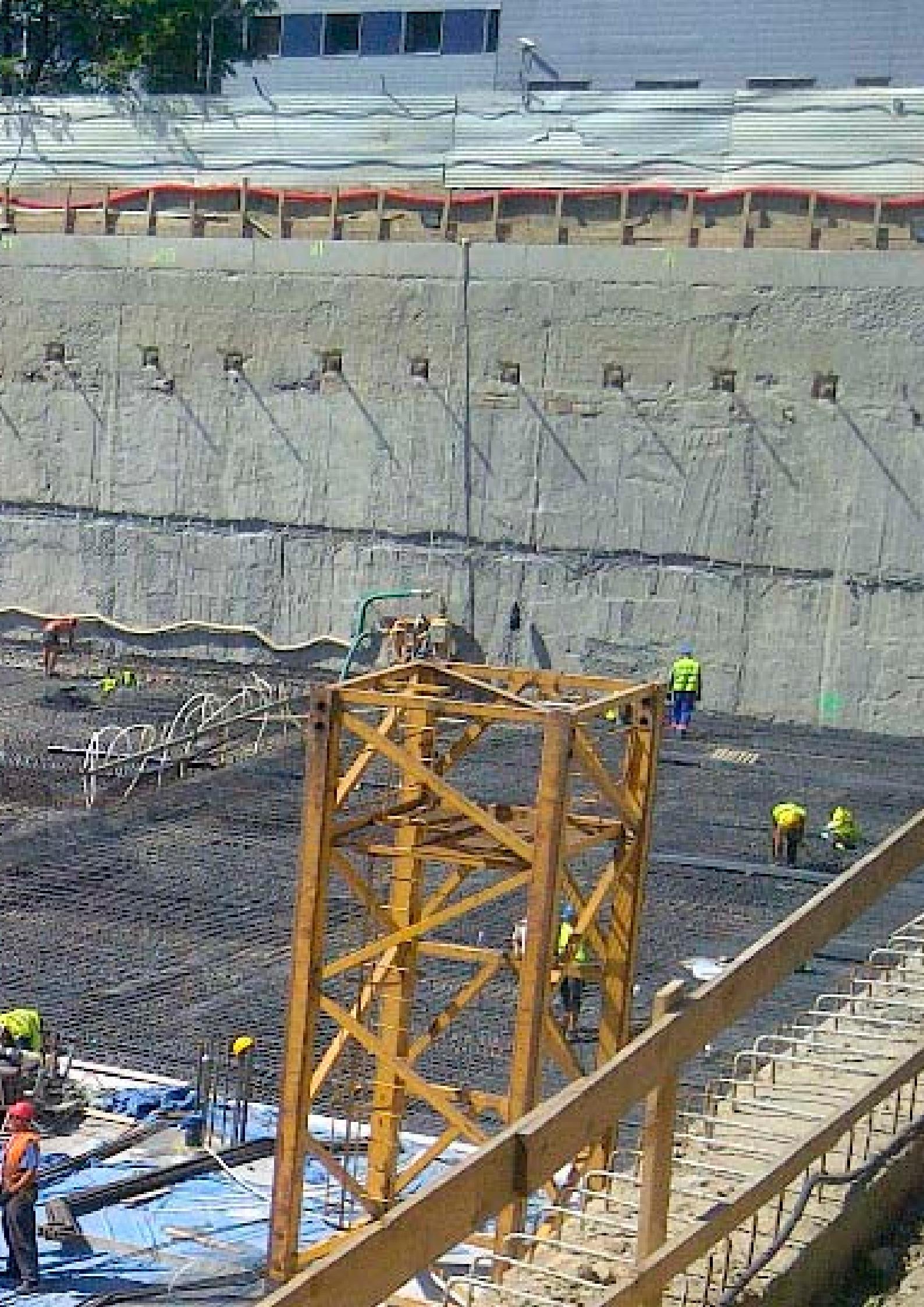
...and MAPEI contribution

As the first works stage of this considerable investment, it was necessary to waterproof all underground parts of the raised building. The Expert Team from MAPEI Building Line proposed a solution based on bentonite sheets: MAPEPROOF PL and MAPEPROOF LW. This system worked out pretty fine during construction of a large number of buildings in the whole world, as well as during a relevant range of works related to Wisła Kraków Football Stadium modernization and rebuilding. In the Warsaw investment instance, **in Marynarska street, it was required to create a waterproofing barrier with MAPEPROOF liners on an area which was double in comparison to the one from Krakow Stadium (totally more than 16 000 m<sup>2</sup>)**.

The MAPEPROOF bentonite sheets are composed of a geosynthetic clay (in light color) and a polypropylene fabric (of dark color) between which, an uniform natural sodium bentonite is placed. The needle-punching process ensures a durable fixing of the mentioned components. The MAPEPROOF bentonite sheets, laid on the surface, create an impermeable membrane in contact with ground water. This happens because of the influence of humidity which causes bentonite transformation from powder to waterproofing gel consistency. The bentonite MAPEPROOF liner is also featured by its self-sealing properties. Thanks to this cast, on an evenly spread waterproofing, it was possible to install the reinforcement of a massive foundation. Even in case of a local perforation in a single sheet, it would self-seal in contact with humidity.

The bentonite liners are provided to the building site in two kinds of rolls: 5 x 40 m (MAPEPROOF LW) and 5 x 45 m (MAPEPROOF PL). A single sheet is a roll of 900 kg weight. This is why during transport and unloading, a freight elevator was necessary to handle this material. Subsequently, a team of few employees of an authorized Warsaw construction company, Imbudizol unfolded and laid the sheets. MAPEPROOF was laid with staggered joints, overlapping by 10 cm. Each edge was fixed in place using special nails every 30 cm. Directly on the sheets, the reinforcement was installed and ulteriorly poured over with concrete. This is how the foundations of the "Marynarska 12" office complex were created. On account of the technology applied in the construction, the works related to the waterproofing of the bottom slab were divided to stages. While the ground works were in progress in one part of the building excavation, the other part had already the MAPEPROOF waterproofing created, and yet another one (designed to become a parking lot) had the underground walls built.





## TECHNICAL DATA

■ **Name of building intervention:** The "Marynarska 12" Office Complex / Warsaw / Poland  
■ **Type:** INDUSTRIAL (OFFICE)  
■ **Period of construction:** 2011

■ **Period of MAPEI intervention:** 2012  
■ **Intervention by MAPEI:** waterproofing of underground construction of the office building  
■ **Customer:** Ghelamco Polska Sp. z o.o.  
■ **General contractor:** IMBUDIZOL  
■ **Site manager:** Zbigniew Marszałek  
■ **MAPEI Coordinator:** Mikołaj Alexandrowicz.

MAPEI PRODUCTS	MATERIAL INSTALLED	SUBSTRATE	QUANTITY OF PRODUCT	SURFACE	INSIDE/OUTSIDE	NEW/RENOVATION	PRODUCT LINE
	DO NOT COMPLETE FOR BUILDING PRODUCTS						
MAPEPROOF PL			14 175 m <sup>2</sup>		OUTSIDE	NEW	PRODUCTS FOR BUILDING
MAPEPROOF LW			2400 m <sup>2</sup>		OUTSIDE	NEW	PRODUCTS FOR BUILDING

