

# PREPRUFE® Waterproofing Protects Warsaw Spire Construction

Distinctive office project relies on watertight structural solution

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Project	Warsaw Spire
Developer	Ghelamco
Engineer	Bakkala Consulting Engineers - Dublin
Architect	Jaspers & Eyers Architects - Brussels
General Contractor	Monting - Warszawa
Applicator	2 K Serwis - Warszaw
GCP Solution	PREPRUFE® waterproofing

# Project Profile

## Building a landmark office center

Warsaw Spire is a unique office project under development in the city center. The project lies at an epicenter of Warsaw, and includes modern office buildings and prestigious residential projects, as well as access to excellent transportation options, including trams, buses, and a second metro line under construction.

The visionary complex includes a 220-meter high tower building (48 levels) with a hyperboloid glass facade and two lower buildings, each of 55 meters in height (15 levels). Together, they will provide approximately 100,000 m<sup>2</sup> of office space equipped with the latest technical solutions. It's the largest office development currently under construction in Europe.

GCP Applied Technologies has once again provided a proven, high performance waterproofing solution that will ensure this prestigious and ambitious construction project stands the test of time.

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## Finding intelligent structural solutions

With five levels of underground parking below the development and foundations that reached a depth of 55 meters, the contractor had to come up with intelligent structural solutions and had to construct one of the deepest diaphragm walls in Poland. It required a high performance membrane to provide fully bonded waterproofing, zero water tracking, and exceptional concrete protection.

With the basement area subjected to 18 meters of hydrostatic water pressure, PREPRUFE® waterproofing membrane proved the ideal structural design solution, offering the perfect combination of outstanding water-tightness, proven performance, and a simple application process. It is reliable, practical, and meets unrivaled standards, making it the obvious choice for below ground waterproofing protection.

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## Selecting the most reliable waterproof solution

More than 13,000 m<sup>2</sup> of PREPRUFE® 300R membrane were specified to complete a comprehensive waterproofing system for the basement. Detailing was tricky in the basement since there were three separate structures that would settle independently.

Designed with a proprietary adhesive layer, the Advanced Bond Technology™ enables concrete to aggressively adhere to the PREPRUFE® membrane, forming a seal that prevents any water migration between the waterproofing layer and the structure to substantially reduce the risk of leaks. As a result, potential breaches are localized to prevent water tracking between the waterproofing membrane and the structure.

Unlike other structural solutions, the PREPRUFE® waterproofing membrane does not rely upon hydration processes or swell in contact with water, and can withstand a 70m head of water. This makes it truly waterproof. This lightweight, flexible solution remains sealed to the structure, regardless of the ground settling.

It can also be applied on wet substrates or in extreme heat and is immediately ready without protective layers to receive rebar installation, proving to be more than five times faster to install than a traditional loose-laid PVC system.

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**Blue360<sup>SM</sup> Product Performance Advantage.**

*Because every project, large or small, deserves the best level of protection.*

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