

Problem

A prominent supplier of steel wall and tunnel formwork in the Netherlands required a solution to improve both safety and durability of their products used in demanding construction environments.

Steel formwork systems are repeatedly exposed to:

- ▶ Moisture and changing weather conditions
- ▶ Mechanical wear during transport, assembly, and dismantling
- ▶ Abrasion caused by concrete casting cycles
- ▶ Outdoor storage between construction projects

Over time, these conditions can lead to surface degradation and corrosion on exposed steel components. In addition to reducing the service life of formwork systems, deteriorating surfaces may affect handling safety during installation and dismantling operations.

For companies operating large formwork fleets across multiple projects, maintaining surface condition is essential to ensure safe use, consistent performance, and long-term equipment reliability. The supplier therefore required a corrosion protection solution capable of supporting durability, operational safety, and sustainable product life-cycle management.



Tectyl proposed approach

Tectyl proposed a preventive treatment strategy designed to protect steel formwork surfaces against corrosion while maintaining surface functionality during repeated use.

The objective was to:

- ▶ Extend product lifetime
- ▶ Improve resistance to environmental exposure
- ▶ Support safe handling and operational reliability
- ▶ Maintain consistent quality across multiple project cycles

In addition, the solution needed to be compatible with the manufacturer's existing production and preparation processes. A water-based corrosion preventive system was therefore selected to support both operational efficiency and environmental considerations.

By implementing preventive surface protection during the preparation stage, the manufacturer aimed to reduce long-term surface degradation while ensuring reliable performance of formwork systems throughout multiple construction cycles.

Solution

Durable and environmentally responsible surface protection

The implemented solution included:

- ▶ **Tectyl 5506W**, a water-based corrosion preventive coating

This solution delivers the following benefits:

- ▶ Reliable corrosion protection for steel formwork systems
- ▶ Support for safe handling through maintained surface condition
- ▶ Extended service life during repeated construction cycles
- ▶ Environmentally responsible coating technology

Tectyl 5506W forms a protective layer that helps shield steel formwork surfaces from moisture and environmental exposure during storage, transport, and repeated use on construction sites. Maintaining surface condition is particularly important for formwork systems that undergo frequent handling and assembly.

The water-based formulation supports sustainable production processes while ensuring consistent protection of steel components used in demanding construction environments.

Result

Following implementation of Tectyl 5506W, the supplier improved the long-term protection and usability of their steel wall and tunnel formwork systems.

The preventive coating helps maintain the surface condition of steel components during storage, transport, and repeated construction cycles. This contributes to improved durability of the formwork fleet and reduces the likelihood of corrosion-related refurbishment or repair between projects.

The solution also supports safer handling of formwork elements by preserving surface quality and minimizing deterioration caused by environmental exposure. As a result, the supplier benefits from more consistent product performance, longer service life of equipment, and improved reliability across multiple construction applications.

In addition, the use of a water-based corrosion protection system supports sustainability objectives within the construction sector by reducing environmental impact while maintaining high protection performance.

Tectyl™ 5506W

