

Problem

Manufacturers in the concrete industry rely heavily on steel molds to ensure consistent quality and dimensional accuracy of concrete products. However, these molds are frequently stored outdoors between production cycles due to space limitations and operational logistics.

As a result, companies face recurring problems:

- ▶ Rust formation on unprotected steel mold surfaces
- ▶ Accumulation of deposits caused by moisture and environmental exposure
- ▶ Increased manual labor for mechanical cleaning before reuse
- ▶ Risk of surface damage during aggressive cleaning processes
- ▶ Negative impact on the quality and finish of concrete products

Removing rust and deposits requires significant time, labor, and equipment. This leads to higher operational costs, reduced productivity, and inconsistent production quality.

Concrete manufacturers therefore need a reliable, easy-to-apply corrosion protection solution that prevents rust formation during storage without complicating production processes.



Tectyl proposed approach

Tectyl offers an environmentally friendly, water-based corrosion protection solution designed to protect steel concrete molds during outdoor storage. The approach focuses on preventive protection, minimizing the need for mechanical cleaning and ensuring molds are ready for immediate reuse.



Solution

Preventive Corrosion Protection for Steel Concrete Molds

To address corrosion and deposit formation, **Tectyl 5506W** was selected as the optimal solution. Tectyl 5506W is a premium, general-purpose corrosion preventive compound that forms a protective barrier on steel surfaces.

Key performance characteristics:

- ▶ Excellent resistance to UV exposure, water, and salt
- ▶ Long-lasting corrosion protection under outdoor conditions
- ▶ Fast drying time, enabling efficient handling and storage
- ▶ Water-based formulation without organic solvents
- ▶ Environmentally friendly and safe for industrial use



Application Process

The application process is simple and easily integrated into existing workflows:

- ▶ Steel molds are cleaned of loose contamination
- ▶ Tectyl 5506W is applied evenly to the surface
- ▶ Preferred application method is airless spraying; air spray can also be used
- ▶ The coating dries quickly, allowing molds to be stored outdoors without delay

The protective layer prevents direct exposure of steel surfaces to moisture and environmental contaminants.

Result

The implementation of Tectyl 5506W delivered measurable operational and economic benefits.

Key Outcomes

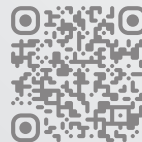
- ▶ Significant reduction in manual cleaning and preparation time
- ▶ Lower labor costs due to fewer required man-hours
- ▶ Improved surface condition of molds after storage
- ▶ Consistent quality of finished concrete products
- ▶ Increased productivity and faster turnaround between production cycles

After three months of outdoor storage, molds treated with Tectyl 5506W showed clear protection against corrosion, while untreated molds exhibited visible rust and surface degradation. This case demonstrates how preventive corrosion protection with Tectyl enables concrete manufacturers to reduce costs, protect critical assets, and maintain high production standards. In addition, the preventive coating helped maintain the usability of molds without extensive mechanical cleaning before returning them to production. This contributes to more predictable production scheduling and reduces the risk of surface damage caused by aggressive cleaning methods.



Left: after application of Tectyl 5506W /
Right: without application of Tectyl 5506W

Tectyl™ 5506W



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