

Timber construction fasteners

Top-performing corrosion protection coating systems

General Metal Finishing

Corrosion protection coatings

atotech.com



Perfectly matched corrosion protection coating systems for the wood screw industry

A developing trend to lessen carbon footprint and use more renewable resources is the application of wood as building material. For a variety of reasons, stainless steel fasteners used in wood construction are being partially replaced with more affordable and durable substitutes that meet complex technical requirements without sacrificing hardness or corrosion resistance.

Wood screws must demonstrate chemical resistance to regularly used preservation and sealing treatments or fire retardants in order to provide the necessary corrosion resistance. In addition, there are strict technical performance criteria that must be met, particularly for automatic applications like prefabricated wood assembly. These criteria include drilling time, tool energy economy, user-friendliness, and appearance.

Our economical woodscrew coating solutions meet national and international standards. In terms of tribological characteristics, optical performance, friction behavior, cutting force, and self-tapping characteristics, they meet the most demanding standards. Their results in neutral salt spray test, cyclic corrosion, and Kesternich tests show exceptional corrosion protection properties.



Electrolytic zinc and zinc alloy coatings

Our all-encompassing product range comprises every variety of zinc, zinc iron, and zinc nickel plating technology. Our portfolio also includes a broad spectrum of high-performance Cr(VI)-free conversion coatings and sealers to meet the rising demand for optimal corrosion resistance and wide color ranges. In combination with our innovative auxiliary equipment, production efficiency can be increased while reducing environmental impact.

Zylite® Eco: AOX-free acid zinc processes with high brightener and carrier concentration

Zylite® HT Plus: Best-in-class acid zinc electrolyte that works at temperatures of 40 °C

Zinni® 220: Highly productive, boric acid-free zinc nickel electrolyte

Tridur® Blue: High-performance blue passivate for electrolytic zinc plating

Tridur® DB: High-performance blue passivate for zinc nickel applications

Sealer 350 WL8: Hybrid sealer with integrated lubricant for improved drilling behavior

Friction Additive X: Lubricant with UV tracer and excellent coverage for reduced drilling time

Electrolyte	Passivate	Sealer	Features
Zylite® Eco	Pasigal EM		Attractive blue appearance. Corrosion performance: 24 h against white rust, 120 h against red rust
Zylite® HT Plus	Tridur® Blue	Friction Additive X	Silver appearance, low friction reducing drilling time Corrosion performance: 240 h against red rust
Zinni® 220	Tridur® DB	Sealer 350 WL8	Stainless-steel appearance, high scratch resistance for multiple tightening. Corrosion performance: 300 h against white rust, 1,000 h against red rust



Zinc flake coatings

Our comprehensive range of zinc flake finishes provides excellent corrosion protection at competitive prices. The coating systems are free from Cr(VI), nickel, lead, mercury, cadmium and cobalt, and can be individually customized to meet various requirements.

Zintek® 200: Premium base coat for excellent cathodic corrosion protection

Zintek® 200 XT: Best-in-class base coat with delayed white rust formation

Zintek® ONE HP: Economic one layer base coat with excellent cathodic corrosion protection

Zintek® Top XT: Water-based, inorganic clear top coat with outstanding corrosion protection

Techdip® Silver SL: Silver, organic top coat with integrated lubricant for controlled friction

Base coat	Top coat	Features
Zintek® 200	Techdip® Silver SL	Corrosion performance: up to 1,000 h NSST without base material corrosion 15 – 17 cycles Kesternich test 2.0 (<15% red rust)
Zintek® 200 XT	Techseal® Silver SL	Integrated lubricant for optimal drilling behavior Corrosion performance: >1,000 h NSST without base material corrosion
Zintek® ONE HP	Zintek® Top XT	Corrosion performance: up to 720 h NSST without base material corrosion



Combined technologies

Our coating systems combining zinc and zinc nickel electrolytes, passivates, and top coats provide extraordinary corrosion protection, outstanding chemical resistance, and controlled friction properties. They exhibit an appealing and durable appearance and are available in different colors. The systems fulfill the most ambitious requirements of the building construction industry.

Techdip® Silver SL: UV resistant, organic top coat with outstanding Kesternich test results

Zintek® Top XT L: Inorganic top coat with superior cyclic corrosion test behavior

Electrolyte	Passivate	Top coat	Features
Zylite® Eco	EcoTri® NC	Techdip® Silver SL	Corrosion performance: up to 1,000 h NSST without base material corrosion 15 – 17 cycles Kesternich test 2.0 (<15% red rust)
Zinni® 220	EcoTri® HC 2	Zintek® Top XT L	Corrosion performance: up to 1,000 h NSST without base material corrosion

MKS offers a full range of corrosion protection coatings for wood screws



Excellence in wood screw coatings

Our product range meets the highest industry requirements for corrosion and chemical resistance while offering attractive appearance and good processing properties.



Global presence

Sales and service for our Atotech products in more than 40 countries enable us to provide efficient customer support worldwide. Many of our products are approved by numerous OEMs worldwide.



Best local service

Our unique global TechCenter network allows us to offer an unmatched spectrum of services, from pilot production, chemical and materials science investigations to comprehensive training for customers and business partners.



Leading technologies

We collaborate heavily with the entire value chain to seek new paths and set benchmarks for the development of innovative surface finishing processes.



Production know-how

We provide customers with complete factory design concepts. Our production systems guarantee the highest level of quality and efficiency in wastewater treatment solutions, all at a reduced cost.



Sustainable solutions

We use less hazardous chemicals whenever possible, eliminate waste water to the greatest extent possible, as well as reduce our carbon footprint.

