

# **PPG High-tech Coating** Steers Fastener Product Value to New Heights

*PPG, the world's leading coating supplier, is helping fastener manufacturers break through the bottleneck and meet the international challenges with its leading electrocoating technology.* 

#### **Top Choice for Electrocoating Brands**

Renowned as the Kingdom of Fasteners, Taiwan boasts a complete supply chain that caters to global demands with both standard and special products. PPG is a leading global coating supplier and pioneer in application of coatings, dedicated to combining coating expertise with fasteners to enhance their value. PPG Alltech Engineered Finishes in Kaohsiung, established by PPG in 2006, marked PPG's first foothold in Asia. It introduced electrocoating technology to Taiwan's fastener market, injecting new vitality into the value of Taiwan's industrial and automotive fasteners. PPG Alltech Engineered Finishes now plays a crucial role in stabilizing the quality of Taiwan's fastener supply chain.

In 1976, PPG successfully developed electrocoating technology using cathodic epoxy, replacing anodic electrocoating and introducing it to the automotive industry. By 2001, PPG had introduced product standards for the fastener industry using this

technology and continuously improved coatings to be compatible with various small components, complying with international regulations. Today, this technology is widely used on construction fasteners and in automotive and industrial markets.

### Connecting Taiwan and the World — Electrocoating Opportunities

PPG Alltech Engineered Finishes has served Taiwanese clients for nearly 20 years, maintaining close relationships and the highest service levels. "PPG's electrocoating technology uses proprietary technology and allows our team to educate our trusted client base, creating a bond that helps us compete in a crowded fastener coatings market." The electrocoating film can provide uniform thickness, perfectly covering specially designed fastener recesses and threads, preserving the original appearance



#### **COVER STORY**

of screws. PPG states, "We excel at coating customized small screws and construction screws because their varied shapes allow us to leverage our strengths of this finish. Other fastening products can also be coated, as we offer the best uniform film build, as well as the best surface protection and maximum product performance."

PPG continues to lead the future with its technology and join hands with the fastener industry to help them survive OEM challenges, and establish a new high value-added image of Taiwan as the Kingdom of Fasteners.

## PPG electrocoating technology boasts **4** industry-leading features:

- 1. Corrosion and Acid Resistance, Doubling Product Lifespan: Salt spray tests (ASTM B117) show increased corrosion resistance to over 2,000 hours. Acid resistance reaches 30 acid rain cycles. Passing the Nordic NORDTEST-method NT MAT 003 C4 and ASTM G85 Annex-5 500 cycles tests.
- 2. Precise, No Clogging, No Coating Accumulation: The cathodic epoxy electrocoating technology uses the principle of attraction between positive and negative poles, allowing coating particles to be absorbed and evenly deposited on the workpiece surface, forming a continuous thin film that uniformly covers the gaps and corners of the workpiece. The film thickness can be precisely controlled to prevent clogging and coating accumulation.
- **3. No Hydrogen Embrittlement, Meeting Torque Requirements:** PPG's Electropolyseal® III coating converts phosphate into a base coat, allowing hydrogen ions that cause embrittlement to be released from small pores. It also addresses torque correction issues, ensuring that the workpiece meets the torque requirements for automotive fasteners.
- 4. Environmentally Friendly, Compliant with Regulations: Extremely low volatile organic compound emissions, with no pollution by hazardous air pollutants or heavy metal contamination from chromium, etc. Compliance with RoHS, REACH, among others, providing a significant advantage for fastener sellers in advanced countries.

#### A Stronger Kingdom of Fasteners

PPG notes that many foreign buyers have been actively and strategically seeking low-cost manufacturing, which inevitably compresses profit margins for fasteners. "Enhancing the value of fastener products" is a necessary path for the transformation of the Kingdom of Fasteners, and PPG's electrocoating can be a tool for fastener companies to increase value. By offering better user experiences through the aforementioned four features, PPG helps clients break free from low-price competition. "From a global perspective, the U.S. has the highest demand for electrocoating, while Europe has relatively lower demand. Over the next five years, we will gradually expand into Europe and increase demand there. Additionally, we can collaborate with Taiwanese manufacturers to provide full consulting and coating services for all overseas clients, offering on-site services at the Taiwan International Fastener Show or at clients' facilities."



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