

July 19, 2012

NEI Corporation Introduces Self-Healing Anti-Corrosion Coating for Zinc-Plated and Galvanized Steel

Somerset, NJ – NEI Corporation introduced today a nanotechnology-enabled, two-layer coating that significantly improves the corrosion resistance of zinc-plated and hot-dip galvanized (HDG) steel. The NEI coating is a drop-in replacement for trivalent chromium. The coating process consists of first applying NANOMYTE® PT-100, a self-healing conversion coating, followed by NANOMYTE® TC-5001. The latter is a barrier coating, designed to work synergistically with PT-100. Both PT-100 and TC-5001 are liquid coating formulations that are amenable to dip coating, brushing, and spray coating. The new NANOMYTE coating technology is designed to protect zinc-plated and galvanized steel surfaces from rusting under severe environmental and operating conditions. In salt-fog exposure experiments (ASTM B117), NANOMYTE-coated, zinc-plated steel panels showed no white rust after 840 hours; no red rust was observed even after 1200 hours. In contrast, non-coated, zinc-plated panels exhibited white rust in 24 hours and red rust after 168 hours in the salt-fog chamber. Salt-spray testing can be used in conjunction with field testing and online life predictors for coatings on HDG, as prescribed by the American Galvanizers Association (AGA).

The new technology is part of NEI's efforts to develop corrosion resistant coating systems, including pretreatments, primers and topcoats that protect steel, aluminum and magnesium from corrosion. The coatings are economical, easy to use, and provide excellent corrosion resistance compared to state-of-the art offerings. "Our thin, double coat solution for zinc-plated and HDG steel represents a significant advancement in the state-of-the-art that could eliminate the need for using thicker primers and topcoats," said Dr. Fred Allen, President of the Anticorrosion Coatings Division at NEI Corporation. "The market focused activities of NEI are a key to serving the needs of customers who require high-performance anticorrosion coatings. Our goal is to engage customers as partners in developing new corrosion-resistant coating products."

About NEI Corporation

Founded in 1997, NEI Corporation develops, manufactures, and distributes nanoscale materials for a broad range of industrial customers around the world. NEI's products include advanced protective coatings, high performance battery electrode materials, and specialty nanoscale materials for diverse applications. NEI has created a strong foundation in the emerging field of nanotechnology that has enabled the company to become a leader in selected markets. The company headquarters is based in Somerset, NJ.

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