

May 6, 2013

## **NANOMYTE® PT-60C - A New Electrically Conducting Corrosion Resistant Coating**

**Somerset, NJ** – [NEI Corporation](#) announced today that it has introduced a chromate-free, electrically conducting conversion coating that significantly improves the corrosion resistance of lightweight metal alloy components. NEI's **NANOMYTE® PT-60C** is specifically formulated for the surface treatment of lightweight metal alloys, such as aluminum or magnesium, used in the electronics industry. PT-60C provides excellent corrosion protection, while simultaneously providing surface and bulk electrical conductivity. The unique "self-repairing" nature of PT-60C overwhelms the galvanic corrosion caused by the electrical conductivity of the coating. Additionally, PT-60C is a waterborne coating solution.

Coatings on lightweight metal components get damaged over time due to contact and spring impact. The damaged areas are sites of potential galvanic and general corrosion. In order to maintain electrical conductivity in grounding and electromagnetic interference (EMI) shielding, corrosion in the contact areas needs to be inhibited. PT-60C provides the necessary corrosion protection. In contrast to currently used coatings, which are either not sufficiently conducting or do not provide adequate corrosion protection, PT-60C provides an easy-to-use alternative with enhanced performance.

The applicability of PT-60C has been demonstrated specifically for magnesium alloys, which have a high tendency to corrode. PT-60C was compared to two conventional treatment technologies - electroless nickel plating and stannate immersion. In salt-fog exposure experiments (ASTM B117), magnesium AZ91D panels coated with PT-60C showed minimal corrosion, even after 10 days (240 hours). In contrast, AZ91D panels with electroless nickel and stannate immersion exhibited general and galvanic corrosion after only 24 hours.

Applications of PT-60C include CD/DVD/Blu-ray players, smart phones, housings of digital cameras, cell phones, the exterior and base of computer notebooks, and handheld devices – places where metallic chassis, cases and frames protect electronic circuitry and sensitive LCD displays.

PT-60C is a single component, waterborne solution. Metal panels can be coated by simple immersion, resulting in a microns thick standalone coating. The liquid is available in 1, 5 and 55 gallon quantities. "Our pretreatments, primers, and topcoats are innovative drop-in solutions for various metal finishing needs. PT-60C represents our ability to engineer a coating solution that meets a specific application requirement," said Dr. Fred Allen, Group President of Anticorrosion Coatings at NEI Corporation.

### **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 incorporate proprietary nanotechnology and advanced materials science to create significant performance improvements in manufactured goods. 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 – USA.

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