

Zentek Introduces a Novel Corrosion Protection Technology: ZenARMOR(TM)

written by Raj Shah | February 8, 2023

February 8, 2023 ([Source](#)) – **Zentek Ltd.** (“Zentek” or the “Company”) (NASDAQ:ZTEK)(TSXV:ZEN), an intellectual property development and commercialization company, has developed ZenARMOR™, a novel corrosion protection technology based on functionalized Graphene Oxide (GO) that offers superior performance, self-healing properties and a potential environmental advantage. Corrosion is a costly issue that significantly impacts naval and marine infrastructure, bridges, buildings, pipelines, and many other industries. To help combat this problem, corrosion protective coatings can extend the life of existing infrastructure and equipment.

Highlights:

- Zentek has developed a novel corrosion protection technology with self-healing properties over the last 2 years;
- Third-party testing yielded excellent corrosion protection after 1,500 hours of ASTM B-117 Salt Spray Test with ZenARMOR™;
- Zentek has been pre-qualified for the Innovative Solutions Canada (ISC) Testing Stream – [Military Call for Prototypes](#);
- Filed a Provisional Patent on this corrosion protection technology;
- Filed a Trademark for ZenARMOR™, the trade name for this novel technology;

- ZenARMOR™ potentially has an environmental advantage due to having very low loading of active ingredients compared to other corrosion protection products in the market.

“The economic cost of corrosion is significant. According to a United States Congressional Briefing on May 31, 2012, corrosion-related costs amounted to US\$452 billion per year in the US, including US \$22 billion for the Department of Defense. The global anti-corrosion coating market was estimated to be \$27.4 Billion in 2019 and expected to grow to 63.7 Billion by 2030 according to Business Wire.” said Greg Fenton, CEO of Zentek. “To help address this issue, corrosion protective coatings are used to extend the life of existing infrastructure and equipment, generally providing a high return on investment. With ZenARMOR™, our team has developed a nanomaterial-based technology that has the potential to further enhance this return on investment by not only improving the performance of existing corrosion protection solutions but doing so in a way that reduces environmental impact.”

Third-Party Testing

The Company is collaborating with Quantum Chemical, a division of Quantum Technical Services Ltd., a manufacturer of high-performance primers and coatings. Testing by Quantum Chemical of ZenARMOR™ in an epoxy system following ASTM B-117 Salt Spray Testing demonstrated excellent corrosion resistance with no blisters or any other signs of corrosion after 1,500 hours with the addition of a very low dose of ZenARMOR™ versus the same corrosion protection epoxy without ZenARMOR™ which started breaking down at the 1000-hour mark. ZenARMOR™ is also comprised of fewer active ingredients compared to other products in the market, which management believes potentially has environmental benefits versus other corrosion protection products.

Testing is ongoing and the Company will report on further significant testing milestones.

Tony Lagrange, founder, and owner of Quantum Chemical since 1995 commented: These initial results of ZenARMOR™ after 1,500 hours of salt spray testing is impressive. Corrosion is a significant problem, and we are excited to be part of the Zentek testing and optimizing strategy for the ISC challenge and to help address this global corrosion problem. We are also leaders in the development of intumescent coating and paint products. We have significant in-house testing infrastructure equipment for intumescent coatings optimization. We are well positioned to work with Zentek on both corrosion and intumescent coating technologies that can improve performance and safety while reducing environmental impact.”

Next Step: Innovative Solutions Canada Testing Stream – Military Call for Prototypes

The Company also reports that the ZenARMOR™ corrosion protection self-healing coating was submitted to the Innovative Solutions Canada (ISC) testing stream – Military Call for Prototypes. The Company is pleased to announce that it has been advised that ZenARMOR™ has met the mandatory and technical evaluation criteria of the Military Call for Prototypes, Military Component, and is considered conditionally qualified, pending further steps such as matching our innovation with a Government of Canada Organization (GCO) interested in testing ZenARMOR™. The Company and the ISC program have begun to socialize ZenARMOR™ to GCOs, exploring opportunities for partnership and testing. Conditionally qualified innovations are now listed on the ISC website.

Intellectual Property

The Company has filed a provisional patent with the United

States Patent and Trademark Office for the ZenARMOR™ corrosion protection technology and has also filed a trademark for ZenARMOR™.

About Zentek Ltd.

Zentek is an IP development and commercialization company focused on the research, development and commercialization of novel products using graphene and nanomaterials for use in the healthcare industry and beyond.

Zentek's patented ZenGUARD™ coating is shown to have 99% antimicrobial activity and to significantly increase the bacterial and viral filtration efficiency of both surgical masks and HVAC systems. Zentek's ZenGUARD™ production facility is located in Guelph, Ontario.

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To find out more about Zentek Ltd., please visit our website at www.Zentek.com. A copy of this news release and all material documents in respect of the Company may be obtained on ZEN's SEDAR profile at <http://www.sedar.com/>.

Forward-Looking Statements

This news release contains forward-looking statements. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Although Zentek believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of

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SOURCE: Zentek Ltd.