

FOR IMMEDIATE RELEASE

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FOR MORE INFORMATION

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Novel Electrically Conductive Silicone Compounds, Using NovationSi and Zeon Technologies, Are Helping Medical Science

BARBERTON, OHIO – January 20, 2021 – Novation Solutions, LLC (NovationSi®), a materials science company that specializes in high quality silicone dispersions, has developed PURmix® high consistency rubber (HCR) healthcare compounds that enhance electrical properties of silicone rubber, using patent-pending technologies that incorporate a revolutionary single-wall carbon nanotube ("SG101") developed by Zeon Corporation.

By effectively dispersing Zeon's SG101 single-wall carbon nanotubes into NovationSi' PURmix® HCR healthcare compounds, the electrically conductive properties of the cured article are greatly enhanced.

A practical application of this novel silicone technology is medical devices that perform neuromodulation therapies on the human body. In fact, the first clinical use of this new silicone compound has already won FDA clearance in suppressing essential tremors and has been released to the medical device market for use on patients under physicians' care.

According to *Neuroepidemiology 2019*, essential tremors affect 4% of the population above the age of 40; for those 65 and older, there is a 20% prevalence of the disorder.¹ Clinical trials associated with this study found that many patients showed reduction in tremors in part due to the therapeutic advances made possible by this new technology.

"It's exciting to see this revolutionary silicone technology helping those suffering from neuro-physical diseases," shared Bob Bradley, president of NovationSi. "Further developments are progressing with these technologies."

"Although this technology is still in its infancy and the scale of our business is small, we would like to contribute to society by taking the patient's standpoint and integrating it with other companies' technologies," said Kohei Arakawa, president of Zeon Nanotechnology Co., Ltd. "The possibility that its adoption in medical devices will give momentum to business development for general industrial use is beginning to appear, and significant growth is expected in 2022."

SG101 carbon nanotubes will be sold by Zeon Nanotechnology Co., Ltd., a wholly owned subsidiary of Zeon Corporation.

The custom HCR healthcare compounds with Zeon's SG101 incorporated, will be sold by NovationSi, under its PURmix® brand in the United States.

About NovationSi

NovationSi, headquartered in Barberton, Ohio, is a material science company specializing in high quality dispersions, additives, modifiers, and colorants for liquid silicone rubber (LSR) and high consistency rubber (HCR). NovationSi also specializes in custom silicone developments with HCR, LSR, room-temperature vulcanizing (RTV) materials that provide improved processing and enhanced physical properties. To learn more, visit NovationSi.com.

About Zeon Corporation

Zeon Corporation is a chemicals manufacturer that produces materials for daily life such as synthetic rubbers, specialty resins and electronic components. Learn more at www.zeon.co.jp.

References:

¹ Louis E, D: The Roles of Age and Aging in Essential Tremor: An Epidemiological Perspective. *Neuroepidemiology* 2019; 52:111-118. doi: 10.1159/000492831

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