

Syensqo partners with MezLight to launch the world's first sterile reusable surgical task light

Novel illumination system with key components molded in Radel® PPSU for durability and repeated sterilization

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Syensqo, a leading global provider of advanced performance materials and chemical solutions, and MezLight LLC, specialists in medical device solutions, have collaborated to bring an innovative surgical lighting system to market that features major components molded in [Radel® polyphenyl sulfone \(PPSU\)](#).

The resulting MezLight is the world's first sterile surgical task light designed to provide bright, focused high-definition illumination for the operating room and ease the physical burden on surgeons, who traditionally wear heavy and cumbersome headlamps for hours on end. The adjustable arm enables accurate illumination of the work area and improves ergonomics for the surgeon by removing the weight associated with conventional headlights. It also adds the benefit of not obstructing face shields

"We are very pleased to have been a part in this breakthrough medical innovation," says Natalie Dragunat, Global Marketing Manager at Syensqo. "The MezLight demonstrates the superior performance offered by our specialty polymers to the healthcare industry, including high mechanical durability, heat and chemical resistance, sterilizability and hydrolytic stability."

Top engineering challenges to be met in the development of the MezLight were the design of a light that could be steam sterilized multiple times and have the necessary mechanical robustness for the grabbing and positioning during application. A high-temperature-resistant material was needed to handle the heat from the LED component and ensure the polymer's high glass transition temperature would prevent deformation. [Radel® PPSU](#) was selected for the removable shield of the light. It was also chosen for the power and brightness control enclosure, which is sealed against moisture ingress. The system has been successfully laboratory tested to survive a minimum of 100 autoclave cycles.

Bill Dorr, Director of Product Design & Quality at MezLight, adds: "By designing with Radel® polymers, we were able to implement our vision of a surgical task light that eliminates the



physical discomfort, poor ergonomics and distraction associated with traditional headlights, while at the same time maximizing the expected product life despite the harsh conditions of repeated cleaning and steam sterilization.”

Main users of the patented MezLight with components molded in Syensqo’s Radel® PPSU are hospitals, ambulatory surgical centers, military medical and veterinary facilities.

Radel® is a registered trademark of Syensqo.

About Syensqo

Syensqo is a science company developing groundbreaking solutions that enhance the way we live, work, travel and play. Inspired by the scientific councils which Ernest Solvay initiated in 1911, we bring great minds together to push the limits of science and innovation for the benefit of our customers, with a diverse, global team of more than 13,000 associates in 30 countries.

Our solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices and healthcare applications. Our innovation power enables us to deliver on the ambition of a circular economy and explore breakthrough technologies that advance humanity.

Learn more at www.syensqo.com.

About MezLight™ LLC

Based in Madison, Wisconsin (USA), MezLight LLC specializes in the design of medical device solutions that put the well-being of the surgeon at the center of innovation..

Visit www.mezlight.com for more information.

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