**Two Alfred University professors awarded FuzeHub Manufacturing Grant**
6/04/20

ALFRED, NY – Two Alfred University professors have been awarded a $50,000 FuzeHub Manufacturing Grant to develop processes to convert glass powder waste into reflective glass beads and luminescent glass microbeads.

Dr. Alexis Clare and Dr. William LaCourse, professors of glass science in the Inamori School of Engineering, New York State College of Ceramics at Alfred University, are collaborating with Hillcrest Industries of Attica, NY, on the FuzeHub-funded project. Hillcrest Industries is a leading manufacturer of glass microbeads used for reflective road marking.

Clare and LaCourse will develop a process that will permit Hillcrest to recycle its glass powder waste to be reprocessed to a dense solid glass while simultaneously altering the composition with unique properties for a wider variety of applications. The initial emphasis will be luminescent glass compositions, which emit light of a specific color when exposed to ultraviolet light radiating from modern automobile headlamps. These glasses were developed by Alfred University glass science Ph.D. candidate Charles Bellows who will be a co-investigator on the project.

By allowing for the efficient recycling of its waste products, the process is expected to increase Hillcrest Industries' profitability and to increase total sales and employment by implementing new technology that can recycle 5-15 tons of waste powder per day into currently produced reflective beads, but also a wide range of new glass microbead products.

The new process being developed by Clare and LaCourse could spur the development of business ventures making use of the technology, or the resulting Hillcrest microbeads. By providing a new market for locally recycled glass, it may also decrease glass municipal waste. "It gives the Inamori School of Engineering an opportunity to use its knowledge of the engineering and, in this case, the optical properties of glass to expand the use of recycled glass for glass microbead applications," Clare said of the grant project.

"I'm excited! Production of solid and hollow glass microspheres is one of the country's fastest-growing industries," LaCourse commented. "We have the opportunity to help Western New York become a leader in the development of new uses for waste glass that might otherwise end up in a municipal landfill."

Derek Kirsch, plant manager at Hillcrest Industries, said he looks forward to working with Clare and LaCourse on the project. "I am excited to test and scale up the ideas that (Clare and LaCourse) have, whether it be developing a new product or coming up with a process so we can efficiently reuse our waste. Anything to make Hillcrest a more efficient and sustainable company makes me very eager to get to work," Kirsch commented.

The $50,000 grant, from the Jeff Lawrence Innovation Fund, is administered by FuzeHub, a non-profit agency that provides New York State manufacturers with guided access to its extensive network of industry experts, programs and assets to solve productivity, commercialization, research and development issues, and other challenges to growth.