

## **Verdex Develops Recycling Technology to Help Alleviate Landfilling Carpet**

### **Technology Produces Nanofibers from Recycled Post Consumer Carpet (PCC) & Bottles**

As part of a joint effort with Carpet America Recovery Effort (CARE), Verdex Technologies has developed innovative technology that can take recycled PET carpet (and bottles) and turn them into an array of nonwoven products such as apparel, filtration and acoustical products to name a few.

This disruptive technology enables the nonwovens industry & associated businesses alike, to play a vital role in solving the ever-growing problem of landfilling carpet and ocean plastic. Verdex's patented spinning nozzle technology converts PCC material directly into nano/micro fibers which are blended with larger fibers to form products for filtration, apparel and acoustic damping. Verdex technology is capable of spinning recycled cleaned PET carpet containing polypropylene and calcium carbonate components.

The vast majority of carpets are sent to landfills each year, and only around 10% are reused or recycled. In California it is now about 18%, hopefully going to 24% as mandated by the state. This ever growing number represents 2% by weight of American landfill waste, totalling almost 4 billion pounds per year.

“Verdex recycling technology can help alleviate this major problem by taking post-consumer carpet & bottles, and turning these into high value nanofiber media for our customers to enhance existing products or create whole new product lines,” says Damien Deehan Co-CEO at Verdex Technologies. “We want to make a real impact in contributing to the circular economy. Verdex recycling technology offers its customers a unique opportunity to adopt a recycling element into their finished products, making it good for the environment, our customers and the end user.”

Verdex patented technology is a simple, safe process for spinning nanofibers using no solvents – only low pressure air. This provides nonwoven manufacturers the capability to offer a wide variety of functional enhancements to their products containing nanofibers. The Verdex process can also spin nanofibers using polymers such as: PCL, PLA, PP, PET, PBT, Nylon 66, and possible others if melt viscosity is low. The Verdex Process delivers nanofibers in a single step process, which can also incorporate functional particles such as super absorbent powder and activated carbon.

Verdex is currently scaling its core nanofiber technology to a 1 meter commercial line, with its new facility being headquartered in Atlanta, Georgia. The Atlanta facility will also house Verdex's Laboratory scale line, which is available for customers to run tests for new product innovation and development. Verdex is now developing relationships with companies, industries and markets that can benefit from its very unique technologies.

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## **About**

### CARE

Carpet America Recovery Effort (CARE) is a non-profit organization dedicated to increasing the landfill diversion, reuse and recycling of post-consumer carpet through market-based solutions that benefit the economy as well as the environment. Since 2002, CARE has diverted more than 5 billion pounds of carpet from landfills in the United States and promoted the use and development of products containing materials derived from carpet. CARE members include independent carpet recyclers, carpet manufacturers, dealers, retailers, suppliers and non-governmental organizations. Double Green™ is a certification program developed and administered by CARE to encourage landfill diversion and recycling of post-consumer carpet. More information can be found at [www.carpetrecovery.org](http://www.carpetrecovery.org).

### Verdex Technologies

Verdex is a technology company specializing in the production of nanofibers for extensive end use applications including: air and microfiltration media, high efficiency fuel filtration, advanced filtration, life sciences/pharmaceutical media, acoustics, face masks, performance apparel, hygiene and much more. The company works with nonwoven companies' to custom develop and manufacture state of the art processes for industry partners wanting proprietary nanofiber technologies.