

GlassCraft Door Company

TEEA 2014 Winner: Innovative Operations/Management



Under the leadership of founder and president John Plummer, GlassCraft Door Company, a small business with fewer than 100 employees, has been successfully making hardwood entry doors for more than 30 years. Mr. Plummer lives by the idea that innovation is key, and it's that vision that led GlassCraft in 2010 to research producing composite doors using a fiberglass skin. Fiberglass doors from larger manufacturers are fairly common throughout the industry. However, their traditional finishing process involves a solvent-based gel stain that releases approximately 4.6 lbs of volatile organic compounds (VOCs) per gallon of product used, which can impact air quality and become a health and safety issue for factory workers. GlassCraft, wanting to maintain a safer work environment and a cleaner, more environmentally conscious industrial operation, decided to create a water-based finishing process that would not only have less VOC emissions but would ensure a better product in terms of durability and aesthetics.

As a small business, GlassCraft was taking a huge risk by investing heavily in the development of this new process. After 20 months of research, testing, and experimentation, what resulted was an innovative method for finishing fiberglass doors that exceeded all expectations. An impressive 75 percent reduction of forecast VOC release has been achieved by using the newly formulated water-based coatings rather than the industry-standard solvent-based process. At current GlassCraft production rates, that's a reduction of 70,500 pounds of VOCs per year. More importantly to Plummer, it looks real enough to "fool a woodpecker." GlassCraft was awarded a patent for the process with two additional patents pending on the process and machinery.

The newly developed finishing process allows budget-savvy GlassCraft customers to purchase a door made from environmentally sound processes at about the same price as the industry standard. Because more and more builders and homeowners want sustainable products, GlassCraft's fiberglass doors have become the perfect product for the new more environmentally conscious market.

GlassCraft is currently producing about 100 doors a day using its new fiberglass door process and expects business to grow—serving as an example that innovating to reduce waste and emissions is both good for the environment and good for business.