

# SIMPLY GREEN



Silicon parts produced from Silfex are used in equipment which manufactures chips.



Silfex employee cleaning silicon parts operating a "wet bench". The employee wears clean room garments to prevent contamination of the work area and product once it has been cleaned.



Silfex facility in Eaton Ohio where they have a commitment to recycling for our future.

## SILFEX IS PROVING ITSELF A LEADER AMONG GREEN MANUFACTURERS

Silfex, a division of Lam Research located at 950 South Franklin Street in Eaton, Ohio is effectively showing how a company can be both profitable and "green" at the same time. Silfex is the worlds largest provider of high purity custom silicon components and assemblies. Their products serve a broad base of high technology markets including solar, optics and semiconductor equipment markets. I recently had the opportunity to tour the facility and to investigate for myself the recycling efforts at Silfex and what is being done there to protect the environment and Earth's precious resources for future generations.

Says Buddy McDaniel, Environmental Health and Safety Manager at Silfex, " competent management of resources is important to the success of our company. At Silfex, we strive to reduce waste where practical. If we can't reduce waste we will try to reuse, resell or recycle materials This improves our cost-competitiveness in the market and reduces our landfill footprint".

Materials recycled at Silfex include: metals (brass, stainless steel, aluminum, titanium, copper, and sheet iron), cardboard and paper (baled corrugated, colored ledger paper), plastics (pvc, pvdf, and other types such as

bottles, bags, Mylar, and Tyvek), glass (soda glass), universal materials (bulbs, batteries, and ballast), as well as miscellaneous materials from the break rooms such as plastic bottles and aluminum cans. Silfex recycled about 100 tons of traditional recyclable materials in 2011 .

However, more impressive is the recovery and reuse of raw materials such as silicon. In 2011 Silfex recovered in excess of 270,000 pounds of silicon scrap from its process resulting in significant savings. The recovery and reuse of silicon reduces the amount of raw material consumed as well as decreasing green house gas emissions that are generated from the processing of raw silicon.

Taken altogether, including traditionally recycled materials and recovered silicon, Silfex effectively recycled or recovered roughly 59% of their generated waste while diverting over 230 tons of material from the landfill.

Another way that Silfex is working to be a good steward of the Earth is by reducing energy consumption. By teaming with DP&L on energy rebate programs Silfex has reduced energy consumption in manufacturing processes and facilities operations. Projects include re-lamping manufacturing areas with energy efficient lighting and

making significant improvements to crystal growing equipment to reduce heat loss. These projects lead to considerable reductions in energy use. Through these projects, Silfex realized a savings of over \$10,00.00 in energy costs for 2011. Says Art Glidden, Facilities Manager at Silfex, "We understand how critical it is for a company to engage in responsible corporate citizenship (i.e. recycling for the environment). There is a potential business benefit as well. People respect a company whose product manufacturing reflects their respect for the environment."

Pollution control equipment and the use of biodegradable materials are yet other example of Silfex's commitment to green manufacturing techniques.

With so many examples of green thinking at Silfex, it is no wonder that the Preble County Solid Waste Management District chose Silfex to be spotlighted in this edition of Simply Green. Other businesses and corporations throughout the county can look toward Silfex for ideas about how they too can become a more profitable and more green company.

For more information about Silfex, you can visit the company's website at [www.silfex.com](http://www.silfex.com).

Preble County Solid Waste District

4499 US Rt. 127 South  
Eaton, Ohio 45320

Phone: 937-456-6880  
Fax: 937-456-6690  
E-mail: beth.wright@prebswmd.org

We're on the web!  
[www.preblecountyrecycles.org](http://www.preblecountyrecycles.org)

*Learn it. Live it. Recycle!*

\*Article information from  
[www.recyclezone.org](http://www.recyclezone.org).



“Every can made from recycled aluminum saves enough energy to power a TV for 3 hours.”



Landfills take up valuable land space and can lead to problems with trash producing toxic water run-off.

### *Why bother to recycle?*

*So why should you care about the waste that you (and everyone else) produce every hour of every day of every year? And why is it so important to reduce, reuse, and recycle? Here are some good reasons.*

### *What a waste!*

*Throwing things away is a waste of the resources and energy which have been used to make the product. If we reduce, reuse, and recycle instead of throwing away, fewer new materials need to be quarried or mined and fewer plantations need to be grown to make new things. Many parts of the world have already been damaged by mining and quarrying, which destroy the natural environment and wildlife habitats and may cause environmental and health problems for local people. In addition, the vast majority of resources that we use manufacturing products and providing services cannot be replaced and so will eventually run out. Recycling also uses less energy than making things from scratch. A lot of this is the result of the oil and other fossil fuels that have to be used to transport raw materials around the world. For example, making aluminum cans from old ones uses only one twentieth of the energy needed to make them from raw materials. Every can made from recycled aluminum saves enough energy to power a TV for 3 hours.*

*Not only does reducing, reusing, and recycling save resources and energy, it can also reduce pollution. Recycling old bottles, instead of making them from new, can cut pollution by up to 20% and reduce the demand for water by half. Making bags from recycled polythene rather than raw materials produces only a third of the sulfur dioxide and half of the nitrous oxide as well as using one-eighth as much water. When something is thrown away we are failing to see it as a resource. What is waste to one person may not be seen as waste by another. Increasingly, people are realizing that it makes economic sense as well as environmental sense to use “waste” rather than just throwing it away.*

### *Where can we put it?*

*If we don't reduce, reuse, or recycle our materials they will have to be disposed of in some way. Usually that means a landfill, which takes up space on the land and could lead to problems with toxic water run-off. Incineration can cause excess air pollution. If less waste is produced by humans to start with, we won't need to use landfills or incinerators quite so much! \**