Kansas Green Teams
Friday Facts for June 25, 2010
www.kansasgreenteams.org
The Wonderful World of Glass

From Jewelry to Jars and Bottles, glass products can be found throughout history. In this Friday Facts, we will take a closer look at **glass** from the raw materials used in the production process to the benefits of recycling this sustainable product.

Glass Production and Raw Materials

Many people know that glass is made from super-heated molten **sand** but what you may not know is that the definition of **sand** is based on grain size and not chemical composition. So, **sand** is not limited to the beautiful white stuff on beaches that comes from weathered quartz (SiO_2). For example, consider Mahana Beach in Hawaii or White Sands New Mexico (photo by R. Ferguson). At Mahana Beach, the **"sand"** is neither white nor quartz but is instead predominately a green mineral called olivine. At White Sands, while beautiful and white, the **sand** is not quartz but is gypsum.

So, if **glass** is made from **sand** and **sand** is defined by grain size, can any material that is the correct size be used for glass? The answer to this question is "no" because not all molten **sand** will cool to produce the transparent to translucent properties normally associated with **glass**. For much more information on glass making, visit the **Glass Packaging Institute** in Alexandria, Virginia. This web site includes but is not limited to the types of sands that are typically used for glass production, how colors are added and why it is preferable for some glass to be brown instead of green or blue.

Have you ever wondered why old glass sometimes looks rippled or wavy? Here's why: glass does not have a crystalline structure so the glass in that old window has been very slowly moving over time. This movement ultimately causes the variances in thickness resulting in the rippled appearance.

Recycling glass

The following is a list of glass recycling benefits that can be found, with others, by clicking here.

1. Glass can be recycled with no loss in purity over time.
2. The recycling process for glass can be as little as 30 days (from the recycling bin to new glass in the stores).
3. The energy required to produce glass drops 2-3% for every 10% of recycled glass used in the process.
4. Since less energy is required for using recycled glass in the production process, the life of the furnaces is extended.

What is this symbol? This is the symbol currently being promoted by the **Glass Packaging Institute** for use on products made from recycled glass.

Here in Kansas, the majority of glass collected will be re-processed into material for use in fiberglass production through one of the following companies:
Stutzman Refuse Disposal, Inc (stutzmanrefuse.com)
Dlubak Glass (dlubak.com)
RippleGlass (rippleglasskc.com)

The listed web sites will also provide additional information on glass recycling specific to Kansas as well as a good look into the products produced from Kansas recycled glass. If you are curious as to whether you can recycle glass in your area, visit kansasrecycles.org. **Thank you!**

Get Caught!

KANSAS GreenTeam