

U L T R A F L E X
SYSTEMS INCORPORATED

BIOflex™

Ultraflex is proud to be the proprietor and patent holder of BIOflex™. This revolutionary biodegradable PVC has helped to lead the printing industry toward the "Green" trend. ASTM D5526 and ISO 13641-1 tests have been conducted on BIOflex™ and are attached for your use. However, because these tests are so technical in context, we would like to provide you with the following useful information and conclusions of these tests. In conducting ISO 13641-1: Potential Inhibition of Biogas Production of BIOflex™ and ASTM D5526: Determination of Anaerobic Biodegradation of BIOflex™ PVC, the following can be concluded:

-Addition of BIOflex™ to a landfill does not interfere with its digestion of other materials. Woods End data per ISO 13641-1 indicate that it improves this ability.

-BIOflex™ contains no detectable heavy metals and no zinc (which is ecotoxic). The plasticizer used is derived from a natural product and is completely consumed by the landfill. In an anaerobic landfill, BIOflex™ loses molecular weight to the point where microbes can consume it. No detectable monomer is formed.

-The Woods End ASTM D5526 data show that the ratio of the fraction of organic carbon and hydrogen from BIOflex™ released to the air, and the fraction delivered to the solid biomass varies with landfill conditions, such as temperature and water content. The fraction released to the air is mostly methane, which can be harvested for fuel, along with the methane released by other components of the landfill, such as paper. Variability in the ratio end product to the air and to the biomass is also typical of other land-filled materials, such as paper.

-Most of the chlorine content of BIOflex™ is converted by the landfill to soluble chloride, which improves its value as fertilizer. A small fraction is taken up by the biomass as one of the essential trace elements. The minor amount of refined calcium carbonate in BIOflex™ also adds to fertilizer value in the landfill.

Ultraflex intends to introduce more eco-friendly media into the market over the next few months. BIOMesh™ will be the next one in our "Green" product line. Thank you for your support and interest in Ultraflex and BIOflex™.

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