



EVGREEN® BIODEGRADATION TEST

Epsilyte has pioneered the first biodegradable expandable polystyrene (“EPS”) resin in the market, EVRgreen. In December 2015, Eden Research Laboratories, located in Albuquerque, New Mexico, U.S.A. (“Eden”), completed a four-year biodegradation study of test samples of EPS made with Epsilyte’s proprietary EVRgreen® resin.

The study utilized ASTM International’s Standard Test Method for Determining Anaerobic Biodegradation of Plastic Materials Under High-Solids Anaerobic-Digestion Conditions, known as ASTM D5511. ASTM D5511 determines the rate and degree of anaerobic biodegradation by measuring the volume of carbon dioxide and methane, or change in mass, as a function of time (days) of exposure to anaerobic-digester sludge. This method is designed to resemble many conditions in wetter or biologically active landfills.

The study recorded the rate and degree of biodegradation of the EVRgreen sample EPS compared to a test sample of standard EPS, as well as a positive control (cellulose), under similar test conditions. **The test results showed biodegradation of 92% of the EVRgreen sample over four years, while the standard EPS degraded only 5.75% over the same four-year period.** The cellulose degraded 94% over this same time frame.

Note that the test was conducted under conditions that simulate both wetter and biologically active landfills. Wetter or biologically active landfills may not exist in all areas. The stated rate and extent of degradation do not mean that the test sample will continue to decompose.

Epsilyte has conducted additional biodegradability tests of EVRgreen with both Eden and other accredited laboratories. The results of such additional tests show similar biodegradability of EVRgreen as the Eden testing, 6%, over a 60 day timeframe, using the ASTM D5511 test under conditions that simulate both wetter and biologically active landfills.