

Ultimate Biodegradability Test - Anaerobic Biodegradability

ASTM D5511

Environment: High-solids, Anaerobic Conditions
Measurement Parameter: Biogas Production



Test Description

ASTM D5511 is an ultimate, anaerobic biodegradability test.

This method may resemble some conditions in biologically active landfills where gas is generated and recovered and biogas production is actively promoted by inoculation, moisture control, and temperature control.

Test Recommendations

Solubility	Can be soluble or insoluble
Adsorption	Can be adsorbing
Volatility	Can be non-volatile
Inhibitory	No microorganism inhibition

Equivalent & Similar Tests

ISO 15985

Test Application

This test is common for plastics and other types of materials.

Results can be shown by displaying the test name, the test duration, and the test item's degradation percentage at the final time point.

Test Specifications

Reference Material	Analytical-grade cellulose
Duration	15-30 days, or until no net gas production for at least 5 days from the positive control and test substance reactors
Temperature	37C (mesophilic) or 52C (thermophilic)
pH	7.5 to 8.5
Inoculum	Activated sludge from wastewater treatment plant
Required Info	Organic Carbon Content (C%)
Measurement Parameter	Biogas production