

Biodegradability norms and standards

Determine the biodegradability of a material according to large number of standards:

Anaerobic biodegradability

- ISO 14853 – ultimate anaerobic biodegradation of plastic materials in an aqueous system
- ISO 13975 – ultimate anaerobic biodegradation of plastic materials in controlled slurry digestion systems
- ISO 15985 – ultimate anaerobic biodegradation and disintegration under high-solids anaerobic digestion conditions
- ISO 11734 – ultimate anaerobic biodegradability of organic compounds in digested sludge
- ASTM D5511 – anaerobic biodegradation of plastic materials under high-solids anaerobic digestion
- ASTM D5210 – anaerobic biodegradation of plastic materials in the presence of municipal sewage sludge
- ASTM D5526 – anaerobic biodegradation of plastic materials under accelerated landfill conditions
- OECD 311 – anaerobic biodegradability of organic compounds in digested sludge

Aerobic biodegradability

- ISO 14851 – ultimate aerobic biodegradation of plastic materials in an aqueous system
- ISO 17556 – ultimate aerobic biodegradation of plastic materials in soil
- ISO 18830 – aerobic biodegradation of non-floating plastic materials in a seawater/sandy sediment interface
- ISO 23977-2 – aerobic biodegradation of plastic materials exposed to seawater (part 2)
- OECD 301 – ready biodegradability of chemical materials in aerobic aqueous medium

Aerobic biodegradability can also be measured based on analysis of evolved carbon dioxide according to following standards. However, test protocols based on same purpose are available based on measurement of oxygen demand in a closed respirometer which is the recommended method for BPC® Blue with a simplified system configuration, higher measurement precision and accuracy.

- ISO 14852 – ultimate aerobic biodegradability of plastic materials in an aqueous medium
- ISO 22404 – aerobic biodegradation of non-floating materials exposed to marine sediment
- ISO 19679 – aerobic biodegradation of non-floating plastic materials in a seawater/sediment interface
- ISO 23977-1 – aerobic biodegradation of plastic materials exposed to seawater (part 1)