

## **Evaluation of the Aerobic Biodegradability Test of Plastic Materials in an Aqueous Medium under the Controlled Conditions**

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### **Abstract**

According to the increase of the use of plastics, their recovery and disposal have become a major issue. These plastic materials tend to leak from closed waste management cycles into the environment. Biodegradable plastics are now emerging as one of the options available to solve environmental problems. Plastic materials, such as products or packaging, which are sent to composting facilities should be potentially biodegradable. Therefore it is very important to determine the potential biodegradability of such materials and to obtain an indication of their biodegradability in natural environments. All tests were performed according to DIN V 54900-2, and the important parameters were obtained for the evaluation of the ecological behaviour of substances. It was tested, by measuring the biological oxygen demand (BOD) in a closed respirometer, for the determination of the degree of aerobic biodegradability of plastic materials. Biodegradability has a key role due to the simple fact a degradable substance will cause no long term risk in the environment. DIN V 54900, this certification scheme entitled "Products made of compostable materials", applies to products for which application is made for certification and for a license to mark them with the Compostability Logo (DIN CERTCO, Germany).

### **References**

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