

# Certification of biodegradable plastics

**Draft**



*Biodegradable plastics are not readily distinguishable from non-degradable plastics therefore other means of marking them are necessary so that they can be properly used and disposed of.*

**Certificate:** an official document attesting a fact (Oxford English Dictionary)

**Certification:** a procedure by which a third party gives written assurance that a product, process or service conforms to specified requirements (EN 45020:2006 Standardization and related activities - General vocabulary)

The method that is most reliable and is already in common use in many countries is certification combined with the use of a special logo marking products made from biodegradable plastics. Certification is a well-defined process in which a certification organization confirms the property of a plastic material, intermediate or product. We can certify only products, while materials, intermediates and additives can only be registered. Certification is normally based on an established national or international standard although it can also rely on less widely accepted criteria.

The certification process is carried out on a voluntary basis. It begins with an application that includes information about the material or product that is to be certified. This then undergoes appropriate laboratory tests at an approved laboratory (which is normally not operated by the certification organization). The laboratory reports the results on the basis of which the certification organization decides on issuing a certificate.

A certificate gives the producer of the product the right to mark it with an approved logo that is accompanied with the serial number of the certificate. In addition, the certification body maintains a publicly available list of issued certificates. A certificate has defined limitations. For example, it is valid for the defined product that was tested, has a validity period, requirements for periodic verification etc.

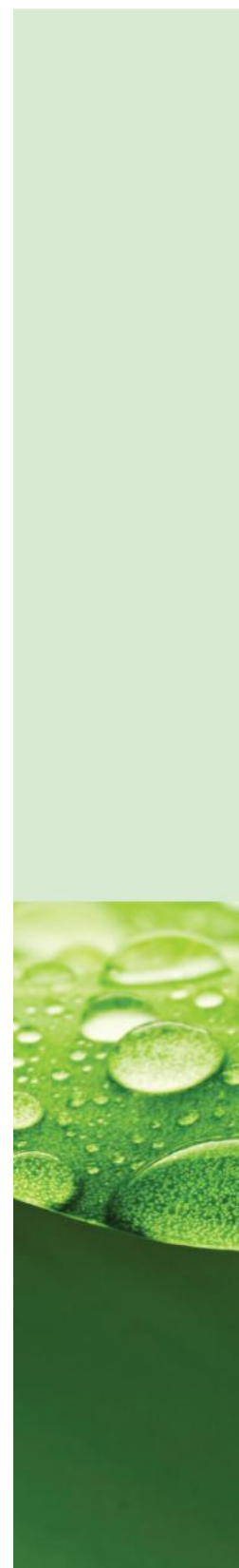
**Biodegradable vs. Compostable?**

Compostable plastics are a subset of biodegradable plastics that biodegrade within the conditions and timeframe of the composting process.

- ◆ **Compostable is always biodegradable**
- ◆ **Biodegradable is not always compostable**

In Europe independent certificates for biodegradable plastics are issued by DIN Certco and Vincotte. DIN Certco issues certificates for compostable plastics based on the EN 14995 (or ISO 17088) and for com-

postable packaging based on the EN 13432 (or ASTM D6400) standard. Vincotte issues certificates for compostable plastics based on EN 13432, as well as certificates for plastics that can be composted in home composting (OK home composting) and plastics that biodegrade in soil (OK biodegradable SOIL) and water (OK biodegradable



WATER). Both organizations issue certificates for biobased materials (based on the ASTM D6866 standard).

Certificates for compostable plastics are also issued by the Biodegradable Products Institute (BPI, US) and the Japan BioPlastics Association (JBPA, Japan) as well as other less widely used organizations.

COUNTRY	ORGANIZATION	STANDARDS	LOGO
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### CERTIFICATES ATTESTING COMPOSTABILITY

Germany	DIN Certco	EN 13432, ASTM D6400, ISO 17088, EN 14995	
Belgium	Vinçotte	EN 13432, EN 14995	
USA	Biodegradable Products Institute	ASTM D6400	
Italy	Italian Composting Association (CIC) together with Certiquality	EN13432	
Australia	Australasian Bioplastics Association (ABA) together with SGS	AS4736	
Belgium	Vinçotte	Specific Vincotte testing program based on EN 13432, and including testing with ISO 14851 or ISO 14855 or ISO 14852 or ISO 17556 at low temperature	

### CERTIFICATES ATTESTING OTHER BIODEGRADATION PROPERTIES

Belgium	Vinçotte	Specific Vincotte testing program including testing with ISO 14851 or ISO 14852	
Belgium	Vinçotte	Specific Vincotte testing program including testing with ISO 17556 or ASTM D5988 or ISO 11266 etc.	
Japan	Japan BioPlastics Association	ISO 14851, OECD 301C, JIS K 6950 etc.	

### Certification within the PLASTiCE project

Within WorkPackage 4, Task 4.5. the introduction of a certification system for compostable plastics is planned for Slovenia and Slovakia. The introduction will be modeled on the cooperation between COBRO, Poland and DIN Certco, Germany. The process, once implemented, will be made available to other countries.

### LINKS

#### DIN Certco (Europe, Germany)

[http://www.dincertco.de/en/products\\_made\\_of\\_compostable\\_materials.html](http://www.dincertco.de/en/products_made_of_compostable_materials.html)

[http://www.dincertco.de/en/din\\_geprueft\\_biobased\\_for\\_more\\_sustainability.html](http://www.dincertco.de/en/din_geprueft_biobased_for_more_sustainability.html)

#### Vincotte (Europe, Belgium)

<http://www.okcompost.be/en/home/>

#### Biodegradable Products Institute (US)

<http://www.bpiworld.org/>

#### Japan BioPlastics Association

<http://www.jbpaweb.net/english/english.htm>

#### Australasian Bioplastics Association

<http://www.bioplastics.org.au/>

#### Association for Organics Recycling (UK)

<http://www.organics-recycling.org.uk/category.php?category=991&name=Certification>

#### Consorzio Italiano Compostatori (C.I.C.) – Italian Composter Association (Italy)

<http://www.compostabile.com/index.html>

#### Polish Packaging Research and Development Center

[http://www.cobro.org.pl/index.php?option=com\\_content&view=article&id=154%3Acertyfikacja-wyrobow-przydatnych-do-kompostowania&catid=34&Itemid=75&lang=en](http://www.cobro.org.pl/index.php?option=com_content&view=article&id=154%3Acertyfikacja-wyrobow-przydatnych-do-kompostowania&catid=34&Itemid=75&lang=en)

#### European Bioplastics –Industrial Composting Factsheet (certification pages 6-8)

[http://en.european-bioplastics.org/wp-content/uploads/2011/04/fs/FactSheet\\_Industrial\\_Composting.pdf](http://en.european-bioplastics.org/wp-content/uploads/2011/04/fs/FactSheet_Industrial_Composting.pdf)

Additional information on sustainability aspects of plastics is available at [www.plastice.org](http://www.plastice.org)

This text was prepared within the project *Innovative Value Chain Development for Sustainable Plastics in Central Europe (PLASTiCE)*, which is carried out within the Central Europe Program and is co-financed by the European Regional Development Fund (ERDF).

March 2012

