



# **Global and China Biodegradable Plastics Industry Report, 2010**

**Jan. 2011**

## ***This report***

- ◆ **analyzes the status quo of the global and China's biodegradable plastics industry**
- ◆ **Focuses on the prospect of market segments such as starch-based plastic, PLA, PHA and PBS. For example, the production capacity of global starch-based biodegradable plastics industry will rise to 708kt /a in 2013, 212.6% more than that in 2009.**
- ◆ **Highlights the operation and development strategies of 10 major enterprises in the global and China biodegradable plastics industry.**

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## Abstract

The implementation of low-carbon environmental protection initiatives has promoted the application of biodegradable plastics and boosted the emergence of biodegradable plastics industry. Starch-based plastic, PLA and PHA, accounting for 90% of the global consumption of biodegradable plastics in 2009, saw their capacity grow rapidly from 306,000 tons in 2007 to 695,000 tons in 2009, with an annual compound growth rate of 50.7%. However, biodegradable plastics only accounted for less than 1% of the global demand for plastics in 2009. Considering the unstoppable trend of biodegradable plastics replacing traditional plastics, the biodegradable plastics industry has huge market potential.

Following the global trend, China's biodegradable plastics industry has developed rapidly. The biodegradable plastics capacity reached 80,000 tons in 2007, and soared to 150,000 tons in 2009, almost 100% more than that in 2007. However, in 2009, China's domestic consumption of bio-plastics was less than 8,000 tons,

and over 95% of China's bio-plastic materials and products were exported to Europe, America and other developed countries, because people there have a strong awareness of environmental protection and are rich enough to accept expensive biodegradable plastics.

NatureWorks of USA is the world's largest PLA bio-plastic manufacturer. Novamont of Italy is the largest bio-plastic manufacturer in Europe. Mitsubishi Plastics of Japan has become a leader in the development of PLA packaging materials in the world. BASF of Germany is one of the manufacturers that launched biodegradable plastics 10 years ago.

## Large-scale Starch-based Biodegradable Plastics Producers and Their Capacity in the World, 2009-2013 (Unit: kt/a)

Producer	Country	Trade Name	Plant (O,C)*	Year	
				2009	2013
Novamont	IT	Mater-Bi	O	80	100
Biotec	DE	Bioplast	O	120	120
Rodenburg	NL	Solanyl	O	0	40
BIOP	DE/NL	BioPar BioParen	O/C	5	80
Limagrain	FR	Biolice	O	10	10
	AU			5	10
Livan (Harbin Livan)	CN/HU	Livan	O	10	60
Cereplast	US	Cereplast	O/C	23	23
		Compostable Cereplast		—	225
		Hybride			
PSM (Wuhan Huali)	CN/HK	PSM	O	40	40
Total				333	708
<p>● Note: "O" represents "plant in Operation"; "C" represents "plant being commercialized", without production or only with pilot production; "O/C" represents "plant which has been commercialized and is on the way of large-scale operation".</p>					

Source: Utrecht University; ResearchInChina

Zhejiang Hisun Biomaterials Co., Ltd. ranks third in terms of PLA industrial capacity in the world with the annual output of 5,000 tons.

Guangzhou Kingfa Science and Technology Co., Ltd. is the largest manufacturer of modified plastics in China, it started a biodegradable plastics project in 2009, and plans to build a 20,000-ton biodegradable plastics production line in the next two years.

Wuhan Huali Environmental Technology Co., Ltd. has become a leading enterprise in China's biodegradable industry with the annual output of 40,000 tons.

Anqing Hexing Chemical Co., Ltd. is China's first large-scale PBS enterprise, with the annual capacity of 10,000 tons.

Zhejiang Hangzhou Xinfu Pharmaceutical Co., Ltd. has built up the world's largest continuous and closed PBS production line with an annual capacity of 20,000 tons.

Ningbo Tianan Biologic Material Co. Ltd. is the world's only enterprise that has achieved PHBV industrialization.

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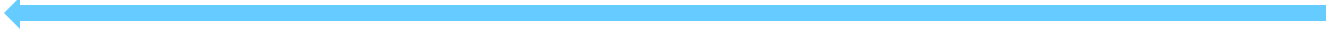
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