专注品质 专业服务

FOCUS ON QUALITY,PROFESSIONAL SERVICES

环保可降解包装手册

ENVIRONMENTAL DEGRADABLE PACKAGING MANUAL

保护人类家园 创造绿色明天

桐城市天柏塑业有限公司
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关于我们 ABOUT US

安徽远腾国际贸易有限公司与桐城市天柏塑业有限公司是由同一法人创建的两家关联公司，位于"中国中部软包装基地"-----安徽省桐城市双新开发区。2004年建厂，并于2010年11月成立安徽远腾国际贸易有限公司，致力于降解塑料新产品、降解新技术的研究、开发及引进。始终本着"诚信、质量、服务、创新"的理念，努力打造全新的企业文化氛围，以软包装基地为依托，以始终追求产品的差异化为发展战略，凭着更为先进的设备，规范化的管理，逐步赢得了市场的认可。

Anhui Renton International Trade Co., Ltd. and Tongcheng Tianbai Plastic Co., Ltd. are two affiliated companies created by the same legal person. Located in Shuangxin development district(which is called the "Central China Soft Package Base "), Tongcheng city, Anhui Province. Tianbai factory was established in 2004 and Anhui Renton International Trade Co., Ltd. was established in November 2010. We committed to the research, development and introduction of new biodegradable plastic products and technology. Based on the concept of " integrity, quality, service and innovation", and strive to create a brand-new corporate culture, taking the soft packaging base as our basis and always pursuing product differentiation as our development strategy, and with more advanced equipment and standardized management, we have gradually won the market recognition.

近年来随着"限塑令"、"禁塑令"的发布，很多企业纷纷转型生产可降解塑料制品，桐城市天柏塑业有限公司早在2010年已经研究可降解塑料产品和技术，并投入使用。目前天柏拥有7个国内自主品牌和1个国际品牌，多项专利申请中，客户遍布全球70多个国家和地区。

In recent years, with the release of "Plastic Limit Order" and "Plastic Ban Order", many enterprises have transformed to produce biodegradable plastic products. We started to research the biodegradable plastic products and technologies and put them into use since 2010. At present, Tianbai has 7 domestic own brands and 1 international brand, also have a number of patents pending, our customers are located in more than 70 countries and regions around the world.

多年的人才和技术储备，让天柏在降解产品生产、印刷领域实现了新的突破，自主研发的多功能制袋机、超大印刷设备，使可降解产品，不再局限于单一的购物袋，让其延伸到不同行业、领域的应用中，其中包括可降解的超大超宽抽绳袋、可降解的防尘罩、可降解的快递袋、可降解的汽车防护用品、各种特殊要求的异型袋等等

Reserves of talent and technology for many years, tianbai has realized the new breakthrough in the field of biodegradable products production and printing,with our independent research and development of large multi-functional bag-making machine and large printing equipment, biodegradable products no longer limited to a single shopping packing bag,tianbai extended it into different industries, such as biodegradable extra-large, super-thicken drawstring bag, biodegradable dust cover, biodegradable courier bags, biodegradable car protective products, all kinds of special-shaped and unconventional packing bags.

目前天柏有多台设备，适合制作淀粉降解、D2W和EPI添加剂、PLA+PBAT、淀粉接枝改性+PBAT、PLA等降解材料的产品。所用原材料获得欧盟EN13432、OK-COMPOST等多项国际权威认证。同时天柏已获得ISO9001:2015、BV、TUV等多项国际认证，是"安徽省进出口商会"、"桐城国际商会"的会员单位，多次被政府及工商部门评为"守合同，重信用"单位。

Tianbai has a number of unique machines suitable for making products of corn starch, D2W and EPI additives, PLA+PBAT, corn starch + PBAT, PLA and other biodegradable materials. The raw materials we use have obtained many international authoritative certifications such as EU EN13432 and OK-COMPOST. At the same time, Tianbai has obtained many international certifications such as ISO9001:2015, BV, TUV, etc. We are member of "Anhui Import and Export Chamber of Commerce" and "Tongcheng International Chamber of Commerce", and also has been awarded as a "contract-abiding and trustworthy" unit many times by the government and industrial and commercial departments.

2018年公司成立了整合包装类平台（www.tbzhuangbei.com）："装呗包装"，从传统的印刷制造模式，逐步转型为包装整体方案提供者，针对不同领域的客户，提供独具创意的环保包装解决方案。

In the year 2018, we set up an integrated packaging platform (www.tbzhuangbei.com): "Anhui Trump Packaging Technology Co., Ltd ". We gradually transformed from the traditional printing manufacturing mode to the one step package solution supplier, offering unique and creative environmental protection packaging solutions for customers in different fields.

RENTON International 远腾国际　装呗 ZHUANGBEI　CHNPACK　Pesger 柏之洁　CHNPACK 信步

降解机理的分类及全生物降解料解析

Classification of degradation mechanism and analysis of total biodegradable materials

随着经济的发展,人民生活水平的提高，塑料制品的需求量日益增加,而塑料带来的"白色污染"也越来越严重。因此，研究和开发新型的可降解塑料成为治理环境问题的一种重要的途径。高分子塑料在许多条件下都可以发生降解反应，在热的作用下发生热降解；在机械力的作用下发生机械降解 ,在氧的作用下发生氧化降解,在化学试剂的作用下发生化学降解。根据降解机理的不同，可以分为光降解塑料、生物降解塑料、光-生物降解塑料和水降解塑料。

With the development of the economy and the improvement of people's living standards, the demand for plastic products is increasing, and the "white pollution" is also more and more seriously. Therefore, the research and development of new biodegradable plastic material has become an important way to combat environmental problems. Polymer plastics can be degraded under many conditions, including thermal degradation under the role of heat, mechanical degradation under mechanical forces, oxidative degradation under the action of oxygen, and chemical degradation in the presence of a chemical agent.According to the different degradation mechanisms, it can be divided into photodegradable plastic, biodegradable plastic, photo-biodegradable plastic and water-degradable plastic.

A、光降解塑料：在塑料中掺入光敏剂，在日照下使塑料逐渐分解掉。它属于较早的一代降解塑料，其缺点是降解时间因日照和气候变化难以预测，因而无法控制降解时间。

A. Photodegradable plastic: The plastic is mixed with photosensitizer and decomposed under sunlight. It is an early generation of degradable plastic,with the disadvantage that the degradation time is unpredictable due to sunlight and climate change, and therefore cannot be controlled.

B、生物降解塑料：指在自然界微生物(如细菌、霉菌和藻类)的作用下，可完全分解为低分子化合物的塑料。其特点是贮存运输方便，只要保持干燥，不需避光，应用范围广，不但可以用于农用地膜、包装袋，而且广泛用于医药领域；

B. Biodegradable plastic: It refers to the plastic that can be completely decomposed into low molecular compounds under the action of natural microorganisms (such as bacteria, mold and algae). This kind of material storage is convenient , as long as keep dry, without dark, wide application range, and can be used for plastic films, packaging bags, medicine and other fields.

C、光-生物降解塑料：降解和微生物降解相结合的一类塑料，它同时具有光和微生物降解塑料的特点；

C. Photo-biodegradable plastic: This type of plastic is an integration of photo- degradation and microbial degradation, which has the degradation characteristics of both light and microorganism degradation.

D、水降解塑料：在塑料中添加吸水性物质，用完后弃于水中即能溶解掉，主要用于医药卫生用具方面(如医用手套等)，便于销毁和消毒处理。

D.Water-degradable plastic□A absorbent substance is added to the plastic, which can be dissolved in water after every use. This material is mainly used in medical and sanitary appliances (medical gloves□etc) for easy destruction and disinfection processing.

在包装行业的实际操作中，我们经常能遇到的是添加EPI/D2W/淀粉等为主的生物降解塑料和PLA+PBAT等混合类型的完全生物降解料。前者成本较低，最后降解为塑料碎片（微塑料），但碎片如何继续分解是个问题，所以这种方式的环保性目前存在一定的争议。后者的成本目前是普通塑料袋的2-3倍，能够在自然界细菌、真菌等微生物的作用下，在一定时间内分解为二氧化碳、水及其他小分子，并且在降解过程中不产生任何有毒残留物。

In the actual operation of packaging industry, we often use the biodegradable plastic with EPI/D2W/starch and the mixed type of complete biodegradable material such as PLA+PBAT. The former is less costly and eventually degrades into plastic fragments (micro -plastics), but how the fragments continue to decompose is a problem, so the environmental conservation of this plastic is currently somewhat controversial. The cost of another is currently 2-3 times higher than that of ordinary plastic bags. It can be decomposed into carbon dioxide, water and other small molecules in a certain period of time under the action of natural bacteria,fungi and other microorganisms, and does not produce any toxic residues during the degradation process.

目前全生物降解料是未来可降解塑料发展的一个重要趋势，最常见的材料是PLA、PBAT和淀粉基塑料，或者这几种以不同比例混合。其中，PLA的单体原料是乳酸，它一般是将玉米等壳类作物碾碎后，从中提取淀粉，然后将淀粉制成未精化的葡萄糖。接着通过类似生产啤酒或酒精的方式来发酵葡萄糖，最终经过提纯工艺得到乳酸单体。它具有好的抗溶剂性、生物相容性、光泽度、透明性，还具有一定的耐菌性、阻燃性和抗紫外性。PBAT属石化基生物降解塑料，既有较好的延展性和断裂伸长率，也有较好的抗冲击性能。它俩共混使得薄膜在韧性和光泽度多个方面表现优异，在代替普通塑料袋上有巨大的潜力。

At present, using full biodegradable material is an important trend in the future. The most common materials are PLA, PBAT and starch-based plastic and a mixture of these in different proportions. The monomeric raw material for PLA is lactic acid, which is generally made by crushing shell crops such as corn, from which starch is extracted and then the starch is made into unrefined glucose. Then the glucose is fermented in a manner similar to the production of beer or alcohol, and finally the lactic acid monomer is obtained through a purification process.Lactic acid monomer has good solvent resistance, biocompatibility, gloss, transparency, and also has certain bacteria resistance, flame retardancy and UV resistance. PBAT is a petrochemical-based biodegradable plastic with good ductility and elongation at break, as well as good impact resistance. The blending of the two material makes the film excellent in several aspects of toughness and gloss, and has great potential in replacing ordinary plastic bags.

关于降解材料的更多相关内容，可以联系我们做进一步了解。桐城市天柏塑业有限公司作为一家致力于降解料新产品开发和降解技术研究及引进数十年的企业，多年的人才和技术储备使我们走在创新的前沿。这些年我们已经把降解材料的产品应用到各种领域，如果您遇到包装方案相关的问题，或需要了解更多关于降解材料在软包装或者是其他领域的信息，欢迎您来咨询洽谈。

For more information about degradable material, please contact us for further information. As a company dedicated to the development of new degradation products and the research and introduction of degradation technology for decades, Tongcheng Tianbai Plastic Co., Ltd. has many years of talent and technology reserves to keep at the forefront of innovation. Over the years,we have applied the products of degradation material to various fields. If you encounter problems related to packaging solutions, and need to know more about degradation material in flexible packaging or other fields,you are welcome to consult and discuss.

材质对比
MATERIAL COMPARISON

	主要材质	使用韧性	降解程度	有无味道	可否堆肥
全降解材质	PBAT+PLA + 玉米淀粉	适中	180天降解成二氧化碳和水	谷香味	可堆肥
半降解材质	PE +氧化降解添加剂	稍强	裂变变碎 1~2年降解	谷香味	可堆肥
普通材质	PE	强	不降解	新料无味 回料刺鼻	不可堆肥

TONGCHENG TIANBAI PLASTIC CO.,LTD.

天柏塑业 TIANBAI PLASTIC

Retail-Merchandise & Industry Service Bags 零售和工业包装

1.T Shirt Shopping Bag 背心袋

custom printed plastic bags with side gussets to accommodate irregular shaped products. The most popular printing is "Thank You". Normally use HDPE also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT. Any color is available.

背心袋可以根据客户的需求定制尺寸，厚度，印刷和颜色，常规国内市场外卖用笑脸袋我司备有现货，常规材质HDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x SG X L	Case Pack
TSB8416	8"x4"x16"	2000pcs
TSB10518	10"x5"x18"	2000pcs
TSB12622	12"x6"x22"	1000pcs
TSB12723	12"x7"x23"	1000pcs
TSB15726	15"x7"x26"	1000pcs
TSB18828	18"x8"x28"	1000pcs
Custom size,logo,color,thickness and packing is available		

2.Die Cut Shopping Bag 冲孔袋

Convenient super strong plastic shopping bag with die cut handle, perfect choice for any retail application. Normally use HDPE/LDPE also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT.Any color available.

冲孔袋可以定制尺寸，厚度，印刷和颜色，各种款式（提手加固，方底，插底加侧风琴）跟据承重和用途随意选择，常规材质：HDPE、LDPE,同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x SG X L	Case Pack
DCB1215	12"x15"	1000pcs
DCB12320	12"x3"x20"	1000pcs
DCB164225	16"x4"x22.5"	1000pcs
Custom size,logo,color,thickness and packing is available		

3.Soft Loop Shopping Bag 软把手提购物袋

Soft handle promotional plastic shopping bags serve a utilitarian purpose aside from looking good. With reinforced gussets and dual soft loop handles, they keep precious cargo suspended safely during transport. Use this imprinted tote bag when you want to increase stability and decrease movement and breakage. Normally use HDPE/LDPE also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT. Any color is available.

印有公司logo或者广告语的手提袋可以提升品牌的知名度，还可以做加侧宽，底宽，或者方底，口部内折加固等款式，这样适用范围也很广泛。常规材质：HDPE、LDPE,同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
SGUSSET	16"x15"+ 6"	250pcs
DEEP	16"x18"+ 6"	250pcs
SQUARE	10"x13"x5"+5"	250pcs
Custom size,logo,color,thickness and packing is available		

4.Ziplock Bag 自封袋，密封袋，夹链袋

Bags with zipper closure keeps out dirt and moisture. This multi-purpose reclosable poly bags are durable as well as reusable for unit doses and prescribed medications, inner packed by 100pcs. Normally used for foods,vegetables,spare parts and ect. It can be colored bags, and with double zipper, with hang hole, with printing logo, with vent holes or with bottom gusset and ect. Normally use LDPE also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT. Any color is available.more information refer as below:

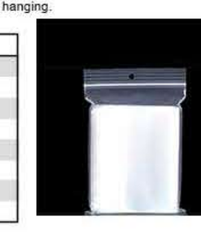
自封袋可以有效的防尘和防潮，这种自封口的塑料袋很结实耐用而且可以重复使用，一般是100只装一袋。常用来装食物，蔬菜，配件等等。可以做彩色的，可定制印刷logo,可做双自封条的等等，常规材质：LDPE,同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。更多的信息请看下面内容。

Standrd weight ziplock bag Normal thickness 2mil
常规自封袋厚度2mil(单层5丝)，其他厚度可定制，顶部可加红线

Item #	Size W X L	Case Pack
ZB1122	1 1/2"x2"	100pcs
ZB22	2"x2"	100pcs
ZB23	2"x3"	100pcs
ZB33	3"x3"	100pcs
ZB44	4"x4"	100pcs
ZB35	3"x5"	100pcs
ZB46	4"x6"	100pcs
ZB48	4"x8"	100pcs
ZB57	5"x7"	100pcs
ZB58	5"x8"	100pcs
ZB510	5"x10"	100pcs
ZB64	6"x4"	100pcs
ZB66	6"x6"	100pcs
ZB68	6"x8"	100pcs
ZB69	6"x9"	100pcs
ZB610	6"x10"	100pcs
ZB710	7"x10"	100pcs
ZB88	8"x8"	100pcs
ZB810	8"x10"	100pcs
ZB912	9"x12"	100pcs
ZB1012	10"x12"	100pcs
ZB1013	10"x13"	100pcs
ZB1215	12"x15"	100pcs
ZB1315	13"x15"	100pcs
ZB1212	12"x12"	100pcs
ZB1318	13"x18"	100pcs

Ziplock bag with hang hole
Hole punched on top of 2mil ziplock bags to allow hanging.
有挂孔的自封袋

Item #	Size W X L	Case Pack
ZBHOLE23	2"x3"	100pcs
ZBHOLE34	3"x4"	100pcs
ZBHOLE35	3"x5"	100pcs
ZBHOLE46	4"x6"	100pcs
ZBHOLE58	5"x8"	100pcs
ZBHOLE69	6"x9"	100pcs
ZBHOLE810	8"x10"	100pcs
ZBHOLE912	9"x12"	100pcs



Heavy weight ziplock bag
Normal thickness 4mil, freezer safe.
加厚加大自封袋，厚度可做到4mil(单层10丝)，可印logo,可书写

Item #	Size W X L	Case Pack
HZB2133	2 1/2"x3"	100pcs
HZB34	3"x4"	100pcs
HZB35	3"x5"	100pcs
HZB44	4"x4"	100pcs
HZB46	4"x6"	100pcs
HZB58	5"x8"	100pcs
HZB66	6"x6"	100pcs
HZB69	6"x9"	100pcs
HZB88	8"x8"	100pcs
HZB810	8"x10"	100pcs
HZB912	9"x12"	100pcs
HZB1212	12"x12"	100pcs
HZB1215	12"x15"	100pcs
HZB1318	13"x18"	100pcs
HZB2027	20"x27"	100pcs

White block ziplock bag
2mil ziplock bags have a write-on area that accepts pen, pencil or marker.
白色可书写自封袋

Item #	Size W X L	Case Pack
WBZB23	2"x3"	100pcs
WBZB34	3"x4"	100pcs
WBZB35	3"x5"	100pcs
WBZB46	4"x6"	100pcs
WBZB58	5"x8"	100pcs
WBZB69	6"x9"	100pcs
WBZB810	8"x10"	100pcs
WBZB912	9"x12"	100pcs

Colored ziplock bag
These colored reclosable ziplock bags help you keep organized.
彩色自封袋

Item #	Size W X L	Case Pack
CZB23	2"x3"	100pcs
CZB33	3"x3"	100pcs
CZB35	3"x5"	100pcs
CZB46	4"x6"	100pcs
CZB58	5"x8"	100pcs
CZB69	6"x9"	100pcs
CZB810	8"x10"	100pcs
CZB912	9"x12"	100pcs
CZB1012	10"x12"	100pcs
CZB1215	12"x15"	100pcs

Die Cut Handle Reclosable Ziplock Bag
These bags with convenient die cut handle, protect your items from the elements and have impressice clarity and durability. The zipper is resealable and reusable.
冲孔手提密封袋

Item #	Size W X L	Case Pack
DCHZB912	9"x12"	100pcs
DCHZB1212	12"x12"	100pcs
DCHZB1315	13"x15"	100pcs
Custom size,logo,color,thickness and packing is available		

Item #	Size W X L	Case Pack
SZB23	2"x3"	100pcs
SZB46	4"x6"	100pcs
SZB69	6"x9"	100pcs
SZB86	8"x6"	100pcs
SZB810	8"x10"	100pcs
SZB912	9"x12"	100pcs
SZB107	10"x7"	100pcs
SZB1215	12"x15"	100pcs
SZB1820	18"x20"	100pcs
EX-large	58"x59"	100pcs
Custom size,logo,color,thickness and packing is available		

5.Slider Zipper Bag 拉链袋

With quick&easy slide lock closure, used as pack and storage in household or industry, thickness 0.025-0.25mm available. Any color is ok. Material can use PE,Non woven +PE, EVA+PE, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT and ect.

带滑块的拉链袋，常用于日常收纳和工业包装，厚度可以做0.025-0.25mm,颜色和印刷内容可以定制，材质可选PE或者一面无纺布一面PE、一面EVA一面PE等等,同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

6.Suffocation Bag with Adhesive Tape 印警示语的贴胶袋

Bags Available in Clear Flat, Wicket, Header Flip top, Staple Pack.Additional Options: Vent Holes, Resealable Tape Strips, Colored Film, Printed Logos, Suffocation Warnings, Bar Codes. Material can use HDPE、LDPE、OPP、CPE、EVA, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT and ect.

一面印有窒息等警告语或者标志,可以做平口的，有贴胶的，或者挂历式的，还可以加透气孔，可以定制logo,做彩色的，可以加印条码。常规材质：LDPE、HDPE、OPP、CPE、EVA,同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
SWB3540	35cmx40cm	1000pcs
SWB4060	40cmx60cm	1000pcs
SWB4046	40cmx46cm+4cm	1000pcs
Custom size,logo,color,thickness and packing is available		

7.Plastic Take out Bags 外卖打包袋

There are different kinds of take out bag use for food service take out & delivery.Such as t shirt bag, die cut bag and softloop bag can pack cups and food containers. Material can use HDPE and LDPE, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT and ect.

市面上通常有背心袋，冲孔袋，手提袋和抽绳袋等多种款式的外卖打包袋，非常适合在奶茶店、早餐店、面包店、餐馆等包装饮料或者打包盒。常规材质：LDPE、HDPE、CPE,同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
TOB-TSHIRT-S	35cmx20cm+10	1000pcs
TOB-TSHIRT-M	38cmx24cm+12	1000pcs
TOB-TSHIRT-L	42cmx28cm+13cm	1000pcs
TOB-TSHIRT-XL	52cmx32cm+15cm	1000pcs
TOB-DC-S	20cmx30cm+12cm	1000pcs
TOB-DC-M	25cmx35cm+16cm	1000pcs
TOB-DC-L	28cmx40cm+18cm	1000pcs
TOB-DRW-S	30cmx20cm+12cm	1000pcs
TOB-DRW-M	35cmx25cm+12cm	1000pcs
TOB-DRW-L	40cmx30cm+14cm	1000pcs
TOB-DRW-XL	45cmx35cm+16cm	1000pcs
Custom size,logo,color,thickness and packing is available		

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8.Flat Opening Poly Bags 平口袋

These bags are good use as a barrier, repack and protect your products from dust and fingerprints, can be use for food, clothes, books, jewelry, bread, vegetables, parts and ect. Thickness can make from 0.5mil-10mil. Material can use HDPE、LDPE、OPP, also can use biodegradable material with D2W、EPI、starch degradation and PLA+PBAT and ect. Also can made into Anti-Static bags to against static damage.

平口袋一般常用于二次包装，可以防尘防潮，食品，服装，书籍，面包，蔬菜，配件等都可以使用，常规厚度从0.5mil-10mil,常规材质：LDPE、HDPE、OPP等，同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
PBF35	3"x5"	100pcs
PBF46	4"x6"	100pcs
PBF57	5"x7"	100pcs
PBF68	6"x8"	100pcs
PBF810	8"x10"	100pcs
PBF2436	24"x36"	100pcs
Custom size,logo,color,thickness and packing is available		

9.Courier Bags 快递袋

Popular use fully biodegradable courier bag. Can make in red white matt black or other colors. with a 30mm flap (not included in the bag sizes) with self-seal strip. Labels will stick to it without problem, its also waterproof. Such mailer bags can also use co-extruded film also can use LDPE or with D2W、EPI、starch degradation.

全降解的材质最先用于物流快递领域，可以定制各种颜色，本身是防水材料，可任意粘贴标签，除了全降解PLA材质还多使用共挤膜，LDPE，复合材质或者添加D2W,EPI，玉米淀粉等降解。

Item #	Size W X L	Case Pack
PM69	6"x9"	100pcs
PM912	9"x12"	100pcs
PM1214	12"x14"	100pcs
PM91419	14"x19"	100pcs
Custom size,logo,color,thickness and packing is available		

10.Bags on Roll 连卷袋

Widely use for fruit, vegetables, meats and cheese. Also use for lightweight items at gift shops or antique stores. Material can use HDPE、LDPE, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT and ect.

连卷袋广泛的用于水果，蔬菜，肉类的包装，也常用于礼品店装一些不太重的小东西，常用LDPE和HDPE材质，同样可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
BOR1217	12"x17"	250pcs/roll
BOR1117	11"x19"	250pcs/roll
Custom size,logo,color,thickness and packing is available		

Garbage Bags 垃圾袋

1.Household Garabge Bags 家用垃圾袋

Normally star sealed bottom and packed in rolls, Popular color is black, clear,gray,white and ect. Can add custom logo. Can use both HDPE and LDPE material, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT.

常规的家用垃圾袋通常是星星底连卷的，最常见的颜色是黑色，透明，灰色，白色等等，用材质是HDPE和LDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

款式有背心式连卷，平口连卷，抽绳连卷3种款式，也可以做波浪口（高低口）款式

Item #	Size W X L	Mil	Case Pack
5 Gal	17"x22"	0.35	1000pcs
7 Gal	20"x21"	0.35	1000pcs
8-10 Gal	24"x23"	0.35	1000pcs
12-16 Gal	24"x32"	0.5	1000pcs
20-30 Gal	30"x36"	0.65	250pcs
33 Gal	33"x39"	0.65	250pcs
Custom size,logo,color,thickness and packing is available			

2.Heavy Duty Garbage Bags 加厚加大工业环卫垃圾袋

Normally use HDPE and LDPE, also can use biodegradable material with D2W、EPI、starch degradation and PLA+PBAT. Bottom seal resists leakage.

常用材质是HDPE和LDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Mil	Case Pack
40-45 Gal	35"x58"	2	100pcs
56 Gal	43"x47"	2	100pcs
60 Gal	38"x58"	2	100pcs
Custom size,logo,color,thickness and packing is available			

3.Asbestos Garbage Bag 石棉垃圾袋

The transparent bags have a thickness of 200 micron for excellent protection. The bags are printed clearly in high visibility red with warnings "Caution Asbestos", "Do Not Inhale Dust" and "Do Not Open Or Damage Bag". It can provide superior toughness and puncture resistance for the safe removal and disposal of asbestos. Normally use LDPE, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT. 5mm and 8mm bottom seal resists leakage.

这个袋子印有警示语，有很强的柔性和抗穿刺能力，能够安全有效的处理石棉垃圾,常用材质是LDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Micron	Case Pack
ASGB-S	56cmx90cm	200	100pcs
ASGB-M	60cmx120cm	200	50pcs
ASGB-L	90cmx120cm	200	50pcs
Custom size,logo,color,thickness and packing is available			

4.Potty Liner 婴儿马桶清洁袋

It including a t shirt bag and a super absorbent pad, the liners are lightly scented so mask odors, can fit all standard and travel potties. The t shirt bag normally made in white HDPE material, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT

婴儿训练马桶清洁内衬袋一般包含一个背心袋和一个超级吸水垫，袋子常用材质是HDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。我们的清洁袋适用于各种婴儿训练马桶。

Item #	Size W X L	Case Pack
PTL-S	24cmx40cm	50pcs
PTL-M	29cmx45.5cm	50pcs
Custom size,logo,color,thickness and packing is available		

5.Disposable Diaper bag 一次性婴儿马尿不湿袋

Popular used at home, to pick up and collection Baby Infant Diapers,also can be used for picking up cat poops, use as dog poops pickup bags, Pet Waste Bags, and Pet Waste Disposal Bags. Scented Bag. Normally made in white HDPE material, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT

多用于处理儿童，老人或者病人用过的尿不湿，也可以当做宠物拾便袋使用，我们可以定制香味的，常用HDPE材质，也可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x SG X L	Case Pack
DBTS	15cmx25cm+14cm	100pcs
Custom size,logo,color,thickness and packing is available		

6.Commode Liners 病人简易马桶清洁袋可加吸水垫

This bedside commode liners make patient care sanitary and convenient with Absorbent Pad. These leak-proof liners serve as a layer of protection from possibly contaminated body fluids. Never have to clean a soiled commode bucket again. Can use LDPE material, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT.

这种医用级材质的床边马桶清洁袋，可加高分子吸水垫，有效解决马桶清洗问题，还可以防臭防渗漏，常用LDPE材质，也可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
CL1621	16"x21"	2000pcs
Custom size,logo,color,thickness and packing is available		

7.Cat Litter Bag 猫砂袋

Our drawstring litter bag can fits most litter boxes, with it no more messes and cleaning.Heavy duty, leak proof, & extra large. Can add custom logo. Can use both HDPE and LDPE material, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT.

我们的抽绳猫砂袋可以适用于大部分的猫砂盆，我们也可以根据猫砂盆的大小来定做袋子尺寸，可以定制外包装，常用材质是HDPE和LDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
CLB1836	18"x36"	20pcs
CLB1845	18"x45"	30pcs
Custom size,logo,color,thickness and packing is available		

8.Vomit Bags 呕吐袋

This vomit bags(emesis bags)normally packed 50/pack, can avoid vomit fluids from spilling all over your clothes, car seat, carpet. Easy to wrap and dispose after use, The bag is with Graduated markings to measure oz and cc/mL, Single use Latex-free, capacity holds more than 1000 cc/ml.Can use both HDPE and LDPE material, also can make biodegradable material with D2W、EPI、starch degradation and PLA+PBAT.

我们生产的呕吐袋常规包装是50只一袋，常年备有现货，也可以定制包装（25pcs/袋等等），多用于医用，幼儿园，飞机，轮船，汽车，孕妇等等，可以有效防止呕吐物的喷溅，也可以做应急小便袋使用，袋子上印有刻度线，可以清晰的检查呕吐物的多少，常用HDPE和LDPE,同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
VB16538	16.5cmx38cm	500pcs
VB1740	17cmx40cm	500pcs
Custom size,logo,color,thickness and packing is available		

9.Biohazard Bags 医疗废弃物处理袋

In hospital and laboratory according to the Classified Catalogue of Medical Treatment Waste and Regulation on the Administration of Medical Treament Waste, medical waste can be classified as: Infectious waste、Pathological waste、Injury waste、Drug-induces waste、Chemical waste . Different colored bags will have different usage,normally have black, clear, red, blue, white, yellow, purple and green colors. Biohazard bags can be made into end open bag,bags on roll, with drawstring, with adhesive tape and t shit type. Material can use HDPE, LDPE and PP, can also use biodegradable material. Thickness 0.5-2.5mil

在医疗中心，医院，诊所，实验室等机构医疗废物大致有：感染性废弃物、病理性废弃物、损伤性废弃物、诱导性废弃物、化学性废弃物，对应不同颜色的袋子用于不同的医疗废弃物，通常有黑色、透明、红色、蓝色、白色、黄色、紫色和绿色等。医疗废弃物处理袋可根据用途可做成平口的，连卷的，抽绳的，贴胶的和背心式的。常见材料有HDPE、LDPE、PP。常规厚度是0.-2.5mil。同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

LDPE

Item #	Size W x D x L	Material	Gallon Capacity	Case Pack
LDBB17	12"x4"x17"	LDPE	4-7	1000pcs
LDBB21	12"x8"x21"	LDPE	7-10	1000pcs
LDBB23	24"x23"	LDPE	10	1000pcs
LDBB32	24"x32"	LDPE	10-15	1000pcs
LDBB36	30"x36"	LDPE	20-30	500pcs
LDBB46	40"x46"	LDPE	40-45	500pcs
LDBB39	33"x39"	LDPE	33	500pcs
LDBB58	38"x58"	LDPE	55	100pcs

HDPE

Item #	Size W x D x L	Material	Gallon Capacity	Case Pack
LDBB24	24"X24"	HDPE	7-10	1000pcs
LDBB33	24"x33"	HDPE	12-16	1000pcs
LDBB37	30"x37"	HDPE	20-30	1000pcs
LDBB40	33"X40"	HDPE	33	1000pcs
LDBB48	40"X48"	HDPE	60	500pcs
LDBB58	38"x58"	HDPE	40-45	100pcs
Custom size,logo,color,thickness and packing available				

10.Soiled Linen Bags 污物袋

All colors, sizes and materials available. Regular and drawtape versions. Printed and non-printed. All of our soiled linen bags work perfectly with our laundry hamper stands. Normal thickness:1.3-2mil,material can use HDPE,LDPE , can also use biodegradable material.

污物袋可以定制颜色，尺寸，厚度，材质以及印刷内容,款式可以是连卷的，单只的，也可以是抽绳的,多用HDPE和LDPE材质，同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
SLB293802	29"x38"	250pcs
SLB304302	30"x43"	250pcs
Custom size,logo,color and thickness is available		

11.Hotel Sanitary Bag 酒店卫生袋，女宾袋

Sanitary bags are an important component within guest rooms as it allows guests to discard of certain personal hygiene items in a separate receptacle. Providing these bags will show guests that you care. Not all items should be thrown into the trash bin, or at least not directly into the bin. You may have a separate receptacle for such items and the sanitary bags can act as a liner. Material can use HDPE,LDPE , can also use biodegradable material.

酒店卫生袋女宾袋可以加单只独立包装。用HDPE和LDPE材质，同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W X L	Case Pack
HSB13526	13.5cmx26cm	500pcs
HSB1225	(12cm+6cm)x25cm	500pcs
Custom size,logo,color,thickness and packing is available		

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12.Hotel Laundry Bags 洗衣袋

Used for transporting or organizing supplies for healthcare providers or for hospital. Available in color of clear, white or blue imprinted bags with various closures to keep contents secure. Material can use HDPE, LDPE , can also use biodegradable material.

用于运送收集医疗中心或医院的病服，常规有透明、白色或蓝色的，款式有抽绳的，硬提手的和贴胶冲孔等，可以定制印刷内容。用HDPE和LDPE材质，同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Style/Color	Case Pack
HLB20202DS	20"x20"	drawstring,white,printed	250pcs
HLB18212DS	18"x21"	drawstring,clear,printed	250pcs
HLB20202DSB	20"x20"	drawstring,blue,printed	250pcs
HLB18212DT	18"x21"	drawtape,white,printed	250pcs
HLB120202DT	20"x20"	drawtape,clear,printed	250pcs
HLB18212RH	18"x21"	rigid handle,white,printed	250pcs
HLB2020TE	20"x20"	patch handle,temper evident,printed	250pcs
Custom size,logo,color,thickness and packing is available			

Disposable Protective Products 一次性防尘防护用品

1.Disposable automobile protective products 一次性汽车防护用品

Disposable car maintenance including: plastic car seat cover, plastic steering wheel cover, plastic gear knob cover, plastic tyre cover, plastic car cover, plastic car floor mat and paper floor mat, and so on.These products are mainly used in 4S stores for testing drive, repair,and decoration. They can help to avoid dirty and damage of from testing drive and repair.Keep clean and tidy of the car interior. They also help to improve the efficiency of accendant and promote the reputation of car maintenance company.

汽车一次性防护用品包括：汽车座椅套，方向盘套，档位套，轮胎套，汽车罩，纸脚垫，和塑料脚垫等。此产品功能主要实践在4S店汽车试驾、试乘，汽车维修与汽车装潢的操作过程中，可以有效地，防止试驾、试乘、或维修人员无意间蹭脏，刮损，刮伤汽车内部，很好的保护了汽车内部的干净，整洁。同时也提高了维修人员的效率及维修公司的信誉。这类产品也是可以做降解材质的。

PE Car Cover
一次性汽车罩
Disposable Plastic Car Cover with Elastic Band- Dust Cover, its great to effectively protect your vehicle from water, sun, dirt and dust. Suitable for indoor and outdoor use. Material can use HDPE, LDPE , can also use biodegradable material.
一次性塑料车罩，带有橡皮筋，可做防尘罩，能有效保护您的车免受水、太阳、灰尘和灰尘的伤害，适用于室内和室外使用。常用HDPE和LDPE材质，同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Suitable Car	Case Pack
PCCS	3.5mx6m	Small car, two-box car,etc	250pcs
PCCM	3.8mx6.6m	Passat, Volkswagen,etc	250pcs
PCCL	4.8mx7.5m	SUV,Jeep,ect	250pcs
Custom size,logo,color,thickness and packing is available			

PE Car Seat Cover
一次性汽车座椅套
Disposable Plastic Car Cover with Elastic Band- Dust Cover,Its great to effectively protect your vehicle from water, sun, dirt and dust.Suitable for indoor and outdoor use.Material can use HDPE, LDPE , can also use biodegradable material.
一次性塑料车罩，带有橡皮筋，可做防尘罩，能有效保护您的车免受水、太阳、灰尘和灰尘的伤害，适用于室内和室外使用。常用HDPE和LDPE材质，同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Case Pack
PE Steering Wheel Cover	10cmx60cm	100pcs
PE Car Gear Knob Cover	14cmx15cm	100pcs
PE Brake Cover	10cmx20cm	100pcs
Car Floor Mat(pe or paper)	18"x22"	50pcs
PE Tyre Cover	Bag or Elatstic cover both ok	100pcs
Custom size,logo,color,thickness and packing is available		

2.Shower Cap 一次性浴帽

PE material, blue, green, white, pink color, etc. Both bouffant cap and clip cap are avaliable, can also use biodegradable material.

PE浴帽，防尘用，颜色可以定制，可做机制条形的，也可做手工圆形的。常用HDPE和LDPE材质，同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Case Pack
PEC18	18"	100pcs
PEC19	19"	100pcs
PEC21	21"	100pcs
Custom size,thickness,color and packing is avaliable		

3.PE Apron 一次性围裙

Both LDPE or HDPE are available, can also use biodegradable material.white, green, yellow,blue, red color and etc. surface can be smooth and embossed, thickness range from 0.01-0.025mm.

一次性围裙可做HDPE或者LDPE,颜色可以定制，常见厚度是0.01-0.025mm.包装方式可定制。同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Case Pack
PA2442	24"x42"	100pcs
PA2846	28"x46"	100pcs
PA31549	31.5"x49"	100pcs
Custom size,thickness,color and packing is avaliable		

4.PE Sleeve Cover 一次性袖套

Both LDPE or HDPE are available,can also use biodegradable material. white, green, yellow, blue, red color and etc. Surface can be smooth and embossed, thickness range from 0.02-0.03mm. Normally packed 10pcs/roll,10rolls/bag,10bags/carton.

一次性袖套可以做机制和手工两种，常见材质是LDPE/HDPE，颜色可以定制，可以做表面压纹的，厚度在0.02-0.03mm,常规包装10只/卷，10卷/袋，10袋/箱。同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Case Pack
PSC2040	20cmx40cm	100pcs
PSC2240	22cmx40cm	100pcs
PSC2246	22cmx46cm	100pcs
Custom size,thickness,color and packing is avaliable		

5.Disposable Pe Gloves 一次性手套

LDPE/ HDPE/CPE material are available, can also use biodegradable material. clear, blue, red etc. Surface can be smooth and embossed, 5fingers/2fingers. 0.7g/1g/1.5g etc . 100pcs/bag,100bags/carton.

一次性手套一般材质是LDPE/HDPE/CPE，颜色、厚度和包装方式可以定制。同时可以做PLA,玉米淀粉降解，堆肥降解，添加EPI、D2W降解剂等降解材质。

Item #	Size W x L	Case Pack
S	27cmx24cm	100pcs
M	28cmx26cm	100pcs
L	29cmx26cm	100pcs
Custom size,thickness,color and packing is avaliable		

6.Pedicure Spa Liner 一次性足浴盆罩

Available in a range of materials such as LDPE/HDPE/CPE or compostable/bio-degradable materials, there will surely be a variant to suit your needs. The special folding design ensures minimal space is required for storage while maintaining ease of use. The elasticated liner ensures a secure fit to the tub and preventing the liner from being dislodged.

Item #	Size W x L	Case Pack
PSLS	107cm	200pcs
PSLM	122cm	200pcs
PSLL	130cm	20pcs
Custom size,thickness,color and packing is avaliable		

7.Equipment and Furniture Cover 仪器罩家具罩

Durable, clear covers protect and keep medical equipment and furniture clean. Available in a range of materials such as LDPE/HDPE/CPE or compostable/bio-degradable materials. Custom size.

耐用、透明的罩子可以保护和保持医疗设备和家具的清洁，可用各种材料，如LDPE/HDPE/CPE或可堆肥/生物可降解材料。可定制各种尺寸。