

专利

PATENT



公众号二维码



专利名称 Patent description	类别 Type	授权号 Authorization number
一种废旧聚酯纺织品回收再利用的方法及其回收系统 A Method and Recycling System for recycling and reusing waste polyester textiles	发明专利 Invention Patent	201810921762.3
一种废聚酯纺织品回收再利用的方法 A method for recycling and reusing waste polyester textiles	发明专利 Invention Patent	ZL201110401517.8
一种废聚酯瓶回收再利用的方法 A method for recycling and reusing waste polyester bottles	发明专利 Invention Patent	ZL201110401312.X
一种废涤纶纺织品回收再利用的方法 A method for recycling and reusing waste polyester cotton textiles	发明专利 Invention Patent	ZL201110401495.5
一种废旧涤纶纺织品连续化分离回收装置及工艺 A continuous separation and recycling device and process for waste polyester cotton textiles	发明专利 Invention Patent	201410621070.9
一种废旧聚酯纺织品回收系统 A waste polyester textile recycling system	实用新型专利 Utility Model Patent	ZL201821305359.X

废聚酯回收技术

WASTE POLYESTER RECYCLING TECHNOLOGY



工业解决方案 INDUSTRIAL SOLUTIONS

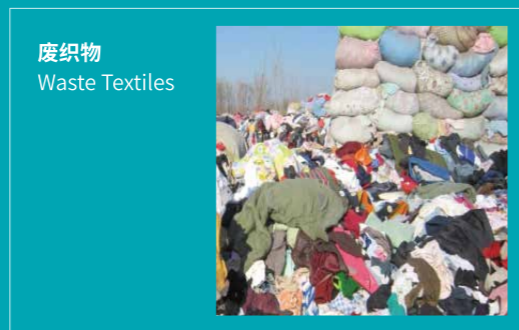
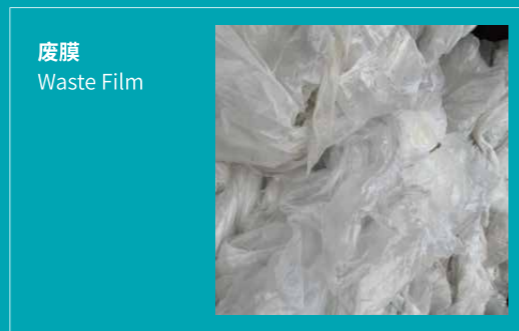


原料

RAW MATERIAL

废丝、废膜、废瓶片、废织物、聚酯排废块料等

Waste Filament, Waste Film, Waste Bottle, Waste Textiles, Waste Polyester Blocks, etc



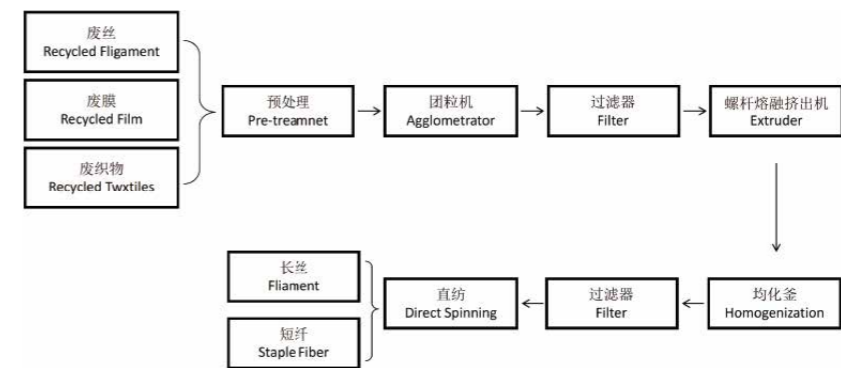
技术

TECHNOLOGY

半化学法 Semi-chemical Method

将废聚酯(废丝、废膜、废瓶片、废织物)原料熔融、过滤、然后送入均化釜均化增粘,得到稳定粘度的聚酯熔体,熔体直接纺丝(长丝或短纤)。

Put the Waste Polyester (Such as Waste Filament, Waste Film, Waste Bottle, Waste Textiles, Waste Polyester Blocks, etc) into the Unit Process of Melting, Filtering, and then transfer it into the Homogenization Kettle to increase the Intrinsic Viscosity (IV), obtaining melting Polyester, which has stable viscosity and could be directly made into Filament and Staple Fiber.



半化学法回收流程
Recycling Process by Semi-chemical Method

技术特点 CHARACTERISTICS

克服原料杂质多、特性粘度差异大等难题;
独立开发以瓶片为原料生产工业丝的平推流、自清洁反应器等技术;
产品特性粘度可控、稳定性高。

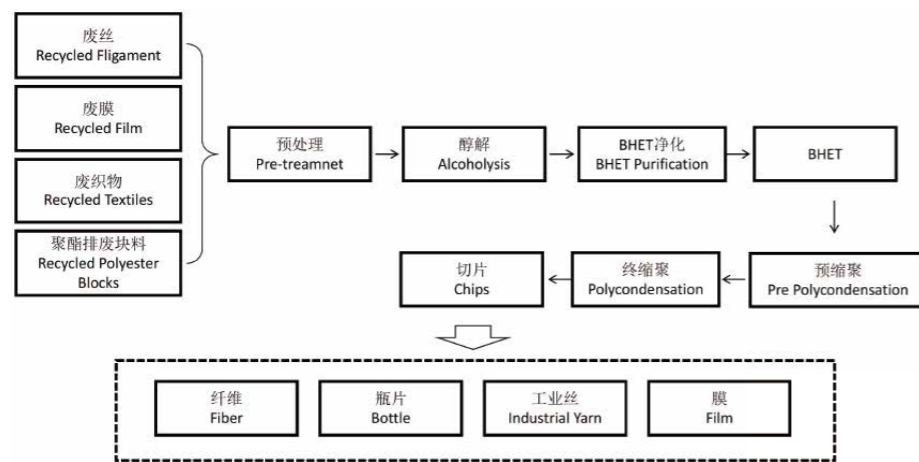
Overcoming difficulties such as high impurities in raw materials and significant differences in intrinsic viscosity;
Independently developing technologies such as Plug Flow and Self-cleaning reactors for producing Industrial Yarn from Waste Bottle;
Intrinsic Viscosity (IV) of Products is controllable and high stability.

化学法 Chemical Method

BHET 法 Method of BHET

将废聚酯(废丝、废膜、废瓶片、废织物、聚酯排废块料)熔融,用乙二醇(EG)醇解生成对苯二甲酸乙二醇酯(BHET),经过提纯后,得到高纯度的BHET产品;BHET可以经过缩聚生成高品质的聚酯(PET)产品。

Melting the Waste Polyester (Such as Waste Filament, Waste Film, Waste Bottle, Waste Textiles, Waste Polyester Blocks, etc), after alcoholysis by Ethylene Glycol (EG), obtaining BHET, and then, after purification, obtaining high purity BHET products; BHET could be used to produce high-quality PET products by Polycondensation Process.

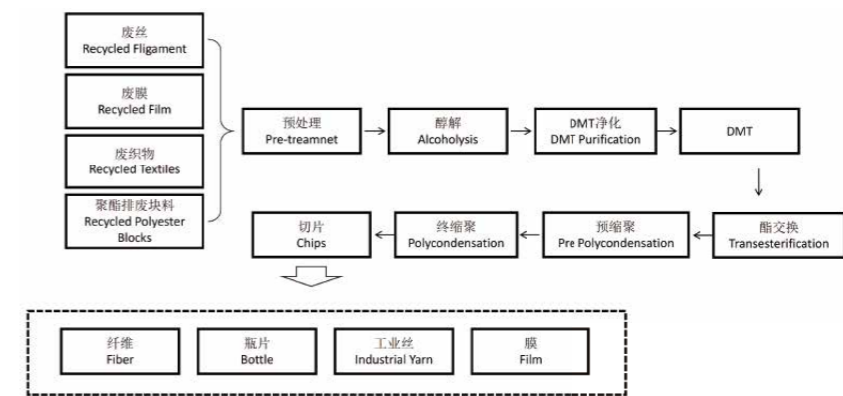


BHET法回收流程
Recycling Process by Method of BHET

DMT法 Method of DMT

将废聚酯(废丝、废膜、废瓶片、废织物、聚酯排废块料)熔融,用甲醇(MA)醇解生成对苯二甲酸二甲酯(DMT),经过提纯后,得到高纯度的DMT产品和副产物EG;DMT经过酯交换、缩聚生成高品质的聚酯(PET)产品。

Melting the Waste Polyester (Such as Waste Filament, Waste Film, Waste Bottle, Waste Textiles, Waste Polyester Blocks, etc), after alcoholysis by Methanol (MA), obtaining DMT, and then, after purification, obtaining high purity DMT and co-product EG; DMT could be used to produce high-quality PET products by Transesterification and Polycondensation Process.



DMT法回收流程
Recycling Process by Method of DMT

技术特点 CHARACTERISTICS

适合大规模生产;
化学法回收技术可以去除废聚酯原料中的各种杂质;
再生聚酯可以达到和原生料聚酯相同的质量指标;
可以生产差别化等高附加值的聚酯;
本技术能耗低,具有显著的成本优势。

Suitable for mass production;
Chemical recycling method can remove various impurities from Waste Polyester;
Recycled PET can achieve the same quality as PET produced by new raw material;
It can produce Differentiated PET and other high value-added PET;
This technology has low energy consumption and significant cost advantages.

应用

APPLICATION

半化学法 Semi-chemical Method

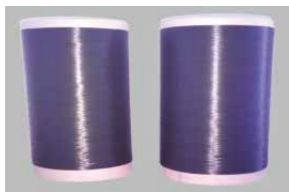
再生短纤
Recycled Staple Fiber



再生长丝
Recycled Filament



再生色丝
Recycled Color Filament



物理法 Physical Method

纤塑新材料
Fiber Plastic New Materials



化学法 Chemical Method

再生长丝
Recycled Filament



再生大有光切片
Recycled Bright Chips



再生半消光切片
Recycled Semi-dull Chips



再生膜
Recycled Film



再生瓶
Recycled Bottle



典型业绩

PERFORMANCE

企业 Company	项目名称 Proect	原料/初始原料 Material/Raw Material	产品/最终产品 Production/Final Material
山东阳信龙福生态科技有限公司	5,000吨/年均化增粘熔体直接纺工业丝	回收聚酯瓶片	工业丝
山东阳信龙福生态科技有限公司	35吨/天瓶片连续均化熔纺长丝生产装置	废聚酯瓶片	FOY
浙江富润纺织有限公司	年产3000吨纯涤纶回收布熔融再聚合聚酯装置	废旧军服	聚酯再生切片
泰国TPC公司	70吨/天聚酯泡泡液相增粘	废泡泡料	短纤
印度GANESHA公司(一期)	70吨/天聚酯瓶片回收纺短纤	废聚酯瓶片	短纤
印度GANESHA公司(二期)	70吨/天聚酯瓶片回收纺短纤	废聚酯瓶片	短纤
土耳其GAMA公司	100吨/天聚酯瓶片回收纺短纤	废料	短纤
泰国TPC公司	70吨/天聚酯瓶片纺长丝	废瓶片	短纤

