



## High-quality fibers: the source of products



### The technical ability to produce staple fibers from waste plastic.

As the trend to preserve the global environment grows, “materials recycling” has received more and more attention. At our company, we produce recycled fibers made from proprietary mixes of PET bottle flakes or film residue with virgin chips. Our company’s advantage is our integrated production system that can deliver short turnarounds for small lots as well as mass production. Furthermore, thanks to our proprietary blending technology, processing technology (dope-dyeing, functionality adding, etc.), and thorough-going quality control, our products are widely used for the interior trim of automobiles.



### Recycled staple fibers are an advantage for manufacturing.

The “Takayasu esters” produced by our company are recycled polyester staple fibers that use recycled PET resin as their raw material. The quality of these fibers is on a par with virgin raw materials, and they are widely used in products ranging from interior trim of automobiles to construction materials, uniforms, and household articles. We can produce Takayasu esters with added functionality that includes water repellency, hydrophilicity, incombustibility, antimicrobial properties, and antifouling properties, and produce modified cross-section fibers — Y-shaped, flat, triangular, hollow, or C-shaped. We offer a diverse array of solutions for markets that demand even more advanced functionality and safety.



The core of Magic Ink permanent markers is made from staple fibers.



## The Process

### Raw Materials



Purified, recycled PET resin is the main material utilized.

### Pigment mixing

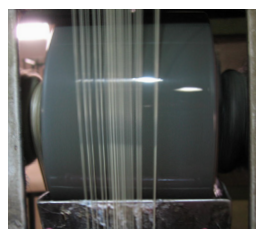


### Spinning



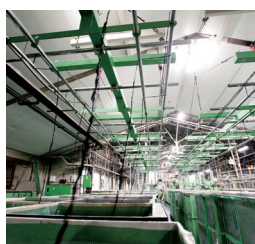
The raw materials are melted, and then squeezed out of tiny nozzles in the shape of fibers.

### Haul-off Machine



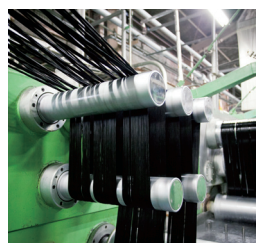
Once the fibers have been stretched, several hundred of them are combined into a single bundle.

### Creel Stand



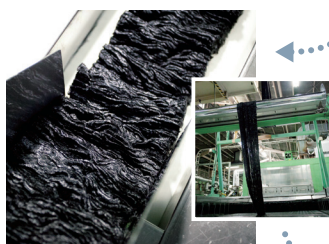
The bundled fibers proceed here to the drawing process.

### Drawing Machine



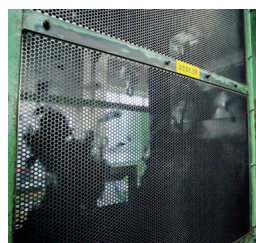
The fibers are drawn in order to give them strength.

### Crimper



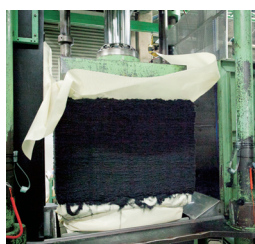
The fibers go through the crimping process, giving them great flexibility.

### Heat Setter



The dried-out fibers are cut to a length suitable for use.

### Packing Machine



The fibers are compressed and packed.

## Inspection



Visual inspection of color



Color variance inspection



Fused fiber inspection

## An efficient, compact production system that can accommodate small lots and diverse production.

At our company, we produce recycled polyester staples in a variety of thicknesses, lengths, and colors in accordance to the requirements of each product, utilizing the advantages our advanced technology gives us. From the melting of raw materials to spinning, drawing, and cutting, our advantage is an integrated production system that can handle small lots, diverse production, and short turnaround times. Our flexible response and high level of quality are widely recognized, and our products are widely used in products ranging from industrial materials for the interior trim of automobiles to clothing and building interiors. Our products are highly regarded for use in automobiles.

## Equipment Overview

staple fiber manufacturing equipment

3 sets

## Ordering Data

Fineness	1.7 to 33 decitex
Cut length	51~76mm
Color	We accommodate color sample instructions.
Blending	We accommodate functional material blending by request.
Post-process oil	Anti-VOC, hydrophilicity, water repellency, fluorine treatment

### ADDRESS

## Takayasu Industrial (Jiangyin) Co., Ltd.

Address: No. 433, Yungu Road,  
Changshou Industrial Park,  
Zhouzhuang Town, Jiangyin City,  
Jiangsu Province  
Zip Code: 214424

TEL 0086+(0)510+8636 0911

FAX 0086+(0)510+8636 0913

