

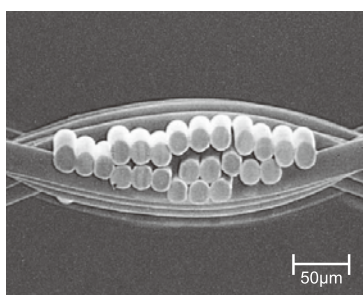
**Toraysee<sup>®</sup>**

**Cleaning Cloth**  
**for Industrial Application**

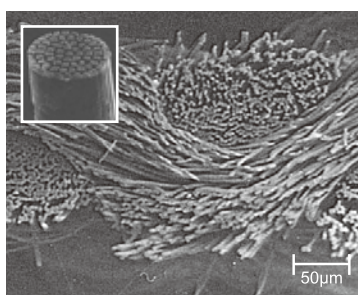
The types for clean room use are also excellent in cleanliness thanks to special fusion cutting and ultra pure water cleaning and are useful for customers to improve quality and productivity. Several permanent specifications and sizes by types are available. Please contact for customized products in specifications such as roll forms and special sizes.

— Oil films, dust and fine dirt are only expanded and cannot be completely wiped away with cloth of popular fibers. Toraysee's micro fibers contact the surface to take dirt into the micro pockets of the fibers and show excellent wiping performance (inner trap function).

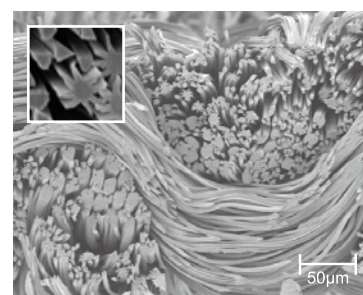
**Toraysee®**



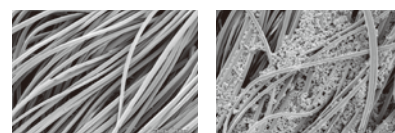
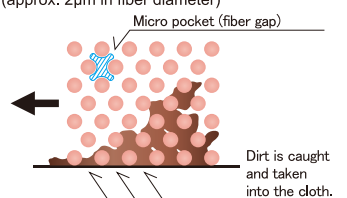
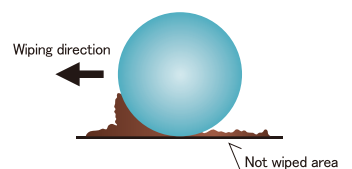
【Popular fiber/approx. 15μm in diameter】



【Micro fiber/approx. 2μm in diameter】



【Micro fiber/approx. 5μm in diameter】



▲Before wiping

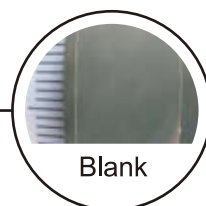
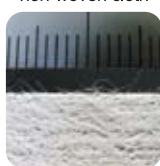
▲After wiping

Toraysee® is a cleaning cloth of fabric or knitted type, and no fibers come off the cloth. Products for clean room use are fusion-cut, cleaned with ultra pure water and packaged in the special processing environment exclusively for wipers.

Cut surface

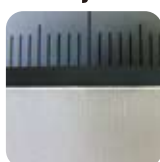
## Foreign matters at the cut end

Foreign matters  
at the cloth surface



Blank

**Toraysee®**



● Ultra pure water cleaning and fusion-cut

- ① Toraysee is cleaned with ultra pure water and packaged in the special processing environment exclusively for wipers.
- ② Toraysee is fusion-cut to prevent dust from being raised from the cut surface



### ① Cleaning



## ② Cutting

## Chemical resistance

Toraysee® can be used together with popular organic solvents.

Organic chemicals	Safety
Methanol	◎
Ethanol	◎
IPA	◎
Acetone	◎
MEK	◎
Toluene	◎
Diacetone	◎

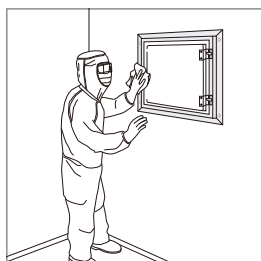
Acid/Alkali	Safety
95% sulfuric acid (Concentrated sulfuric acid)	×
60% nitric acid (Concentrated nitric acid)	×
15.5% hydrochloric acid (Concentrated hydrochloric acid)	×
20% ammonia solution	◎
40% sodium hydroxide	×
Determination: Room temperature of 15°C, Impregnation for 10 minutes ◎: Stable    ×: May be dissolved	

## Product conforming to RoHS

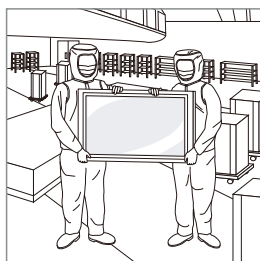
- ① “Product conforming to RoHS” in this brochure means that no cadmium, lead, mercury, chromium sexivalent, PBB nor PBDE are contained excepting impurities at the natural level and that no additives are included intentionally according to EU Directive 2002/95/EC.
- ② This does not guarantee that product conforms to laws and regulations in each country of EU in accordance with RoHS.

## Example of use

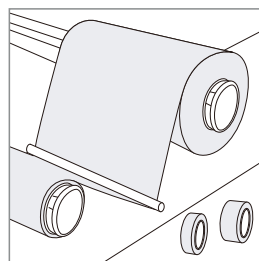
Clean Toraysee® of high wiping performance can be widely used in the manufacturing process apt to be easily damaged by fine dirt or in clean rooms.



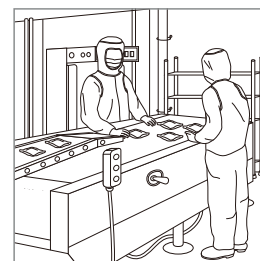
Cleaning and machine maintenance in clean rooms



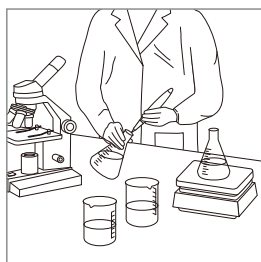
Manufacturing process of liquid crystal and various types of flat panel displays



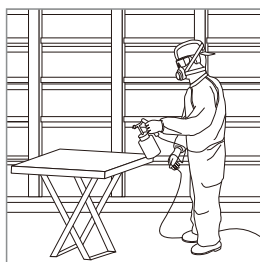
Automated wiping process



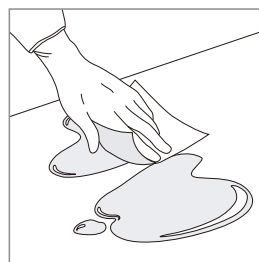
Inspection process



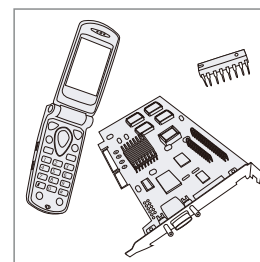
Cleaning in the manufacturing process of pharmaceuticals and foods



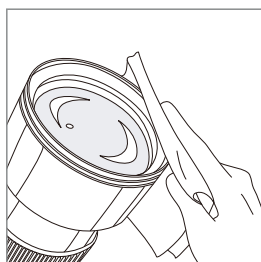
Coating process



Wiping off special chemicals and pastes



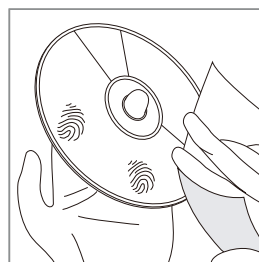
Manufacturing process of semi-conductors, printed boards, electronic parts and precision machines



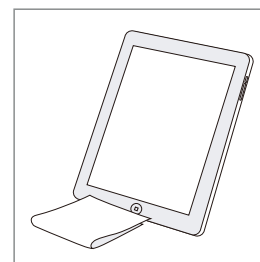
Manufacturing process of optical lens and films



Cleaning various types of digital devices and OA devices



Wiping off finger prints and oil films



As product accessories

<http://www.toraysee.jp/>

Manufactured and marketed by  
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