

# Handbook for improvement of industrial roller using Fluorine resin heat shrinkable tube

**GRC**



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# **Contents of Improvement cases**

## **Features of Fluorine resin**

**Case 1. Prevent adhesion of sediment or sticky substance on rollers**

**Case 2. Prevent corrosion/ rust due to chemicals**

**Case 3. Prevent occurrence of wrinkles by roller**

**Case 4. Prevent adsorption of dirt and dust due to static electricity**

**Case 5. Prevent occurrence of spark due to static electricity**

**Case 6. Prevent abrasions/ micro scratches due to static electricity**

**Case 7. Reduce roller consumption by using stain-resistant roller (water-based ink, solution)**

**Case 8. Reduce roller consumption by using stain-resistant roller (oil-based ink, solution)**

## **Introduction of GRC series**

## **Contact Information**

# Features of Fluorine resin

- **Chemical resistance**

Inactive to almost all chemicals

- **Heat resistance**

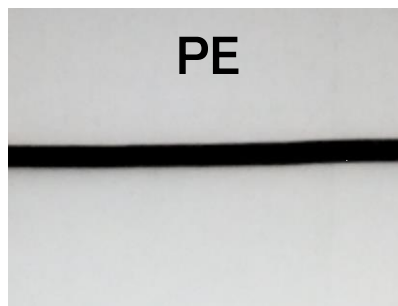
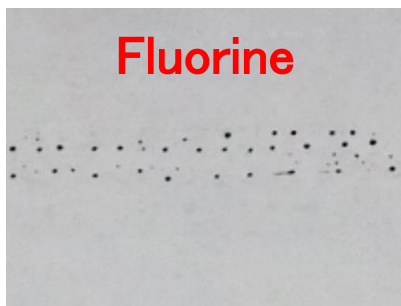
Continuous use temperature 200°C or more

- **Electrical characteristics**

Low-dielectric constant

- **Non-tacky**

Excellent releasing property



- **Low frictional properties**

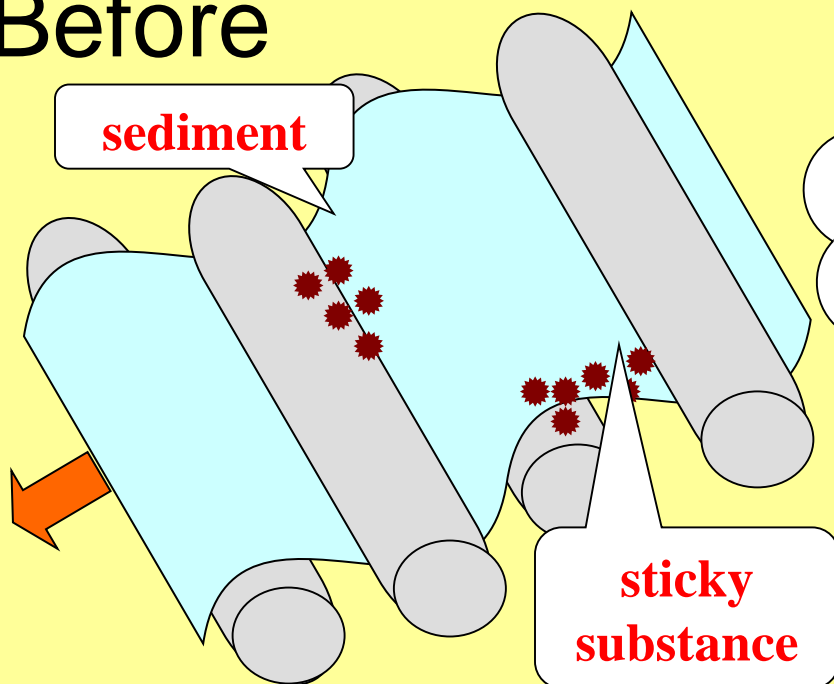
Slippery as ice

- **Weather resistance**

It does not degrade even after long-term use outdoors

## Case1 Prevent adhesion of sediment or sticky substance of rollers

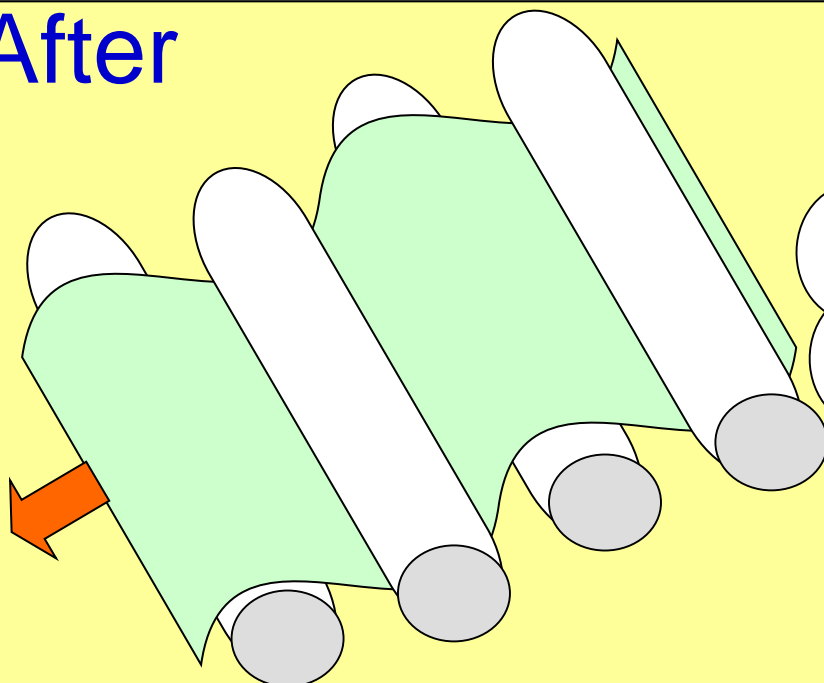
# Before



Is there any good way to avoid sediment adhere or sticky substance to the roller?

## Just to cover with GRC

# After



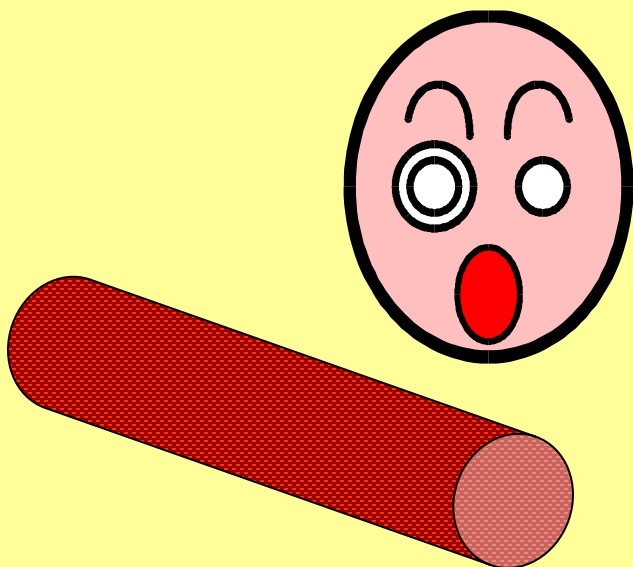
Adhesion of sticky substance and sediments drastically reduced. Even adhered, it is easy to clean!

**Application Examples:**

Laminating process, Non-woven fabric/ Filter paper-manufacturing process, Adhesive tape manufacturing process, Special paper/ film coating process, Roller for adhesive tape slitting process, Expander roller, etc.

## Case2 Prevent corrosion/rust due to chemicals

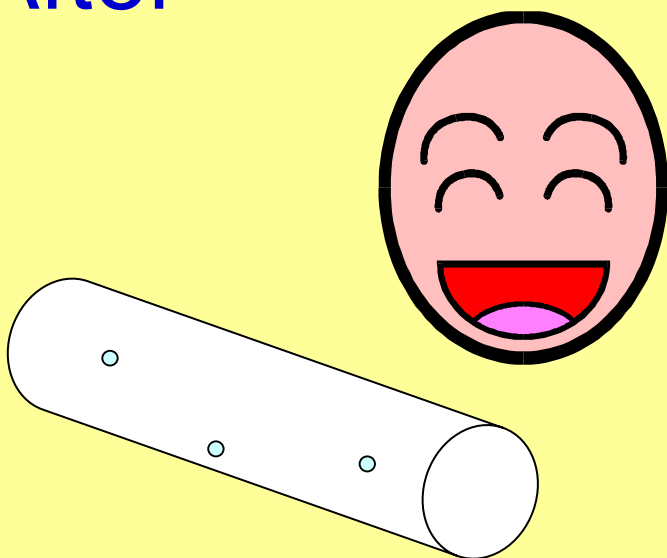
# Before



**Rust and corrosion may occur by chemicals or water roll... Is there any good way to avoid it ?**

## Just to cover the GRC

# After



**It prevents rust and corrosion, also repels water!**

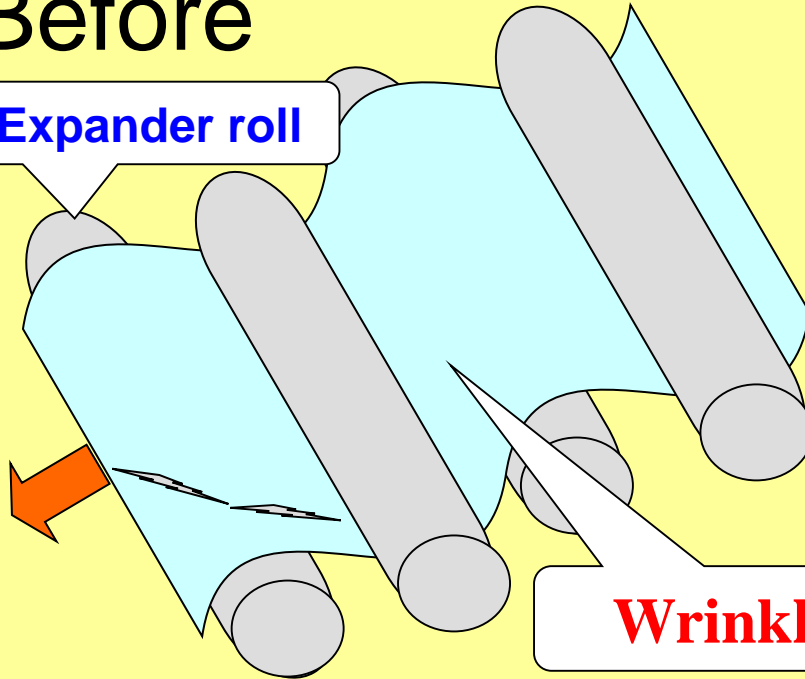
**Application Examples:**

**Roller for cleaning/ drying process of various substrates,  
Roller for printing, Chemical solution application Roller for coating process**

## Case3 Prevent occurrence of wrinkles by roller

# Before

Expander roll

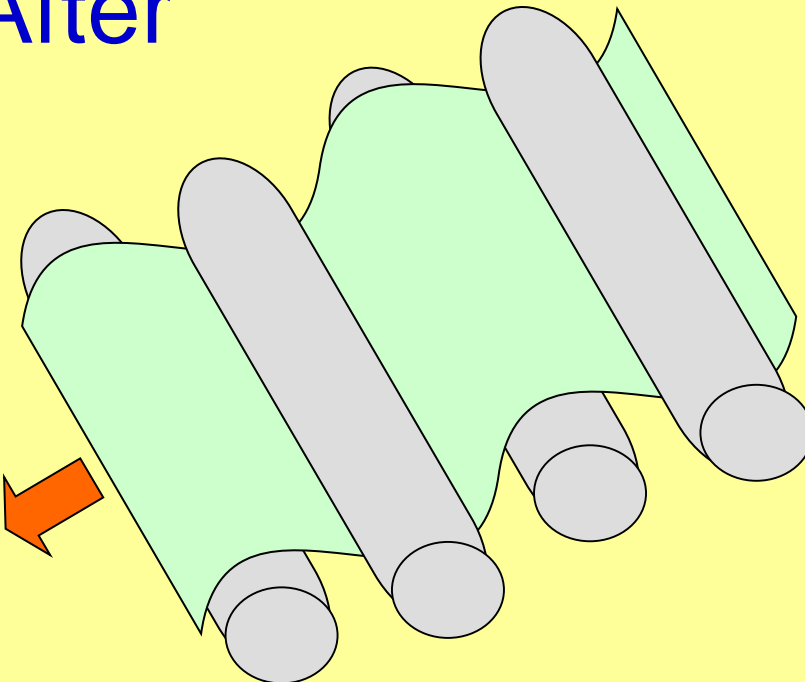


Only expander roller can not solve the problem of wrinkles... Is there a better way?

Wrinkles

## Just to cover the GRC

# After



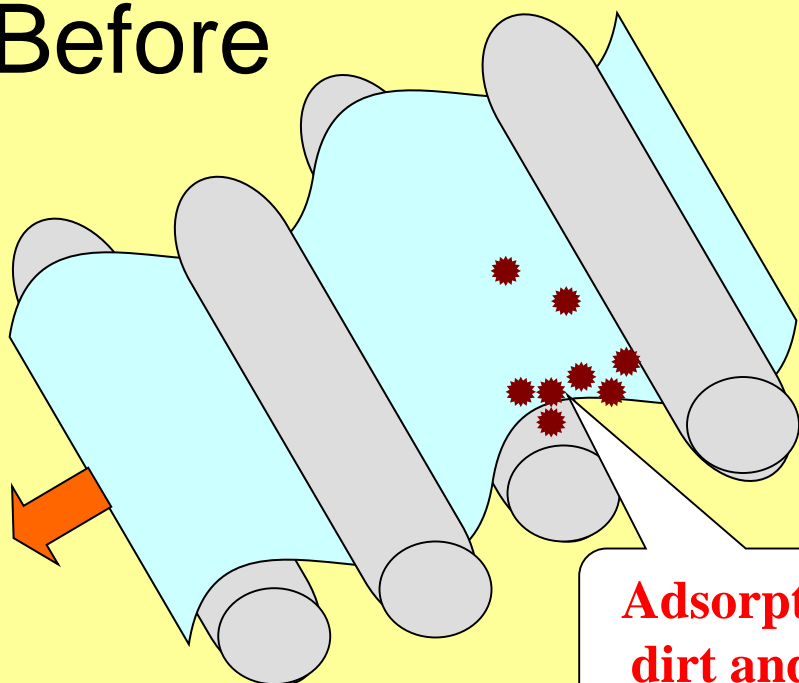
Slip of the roller becomes better and wrinkles are drastically reduced!

**Application Examples:**

Special paper/ film coating process, Roller for non-woven fabric / Filter paper-manufacturing process etc., Expander Roller

## Case4 Prevent adsorption of dirt and dust due to static electricity

### Before

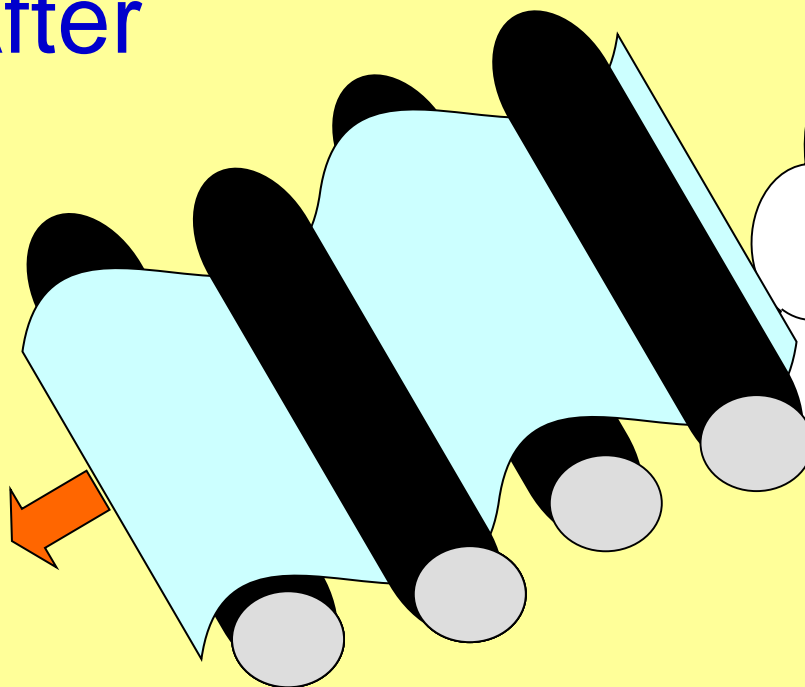


Is there any good way to reduce the adsorption of dirt and dust due to static electricity?

Adsorption of dirt and dust

### Just to cover with GRC-PB

### After



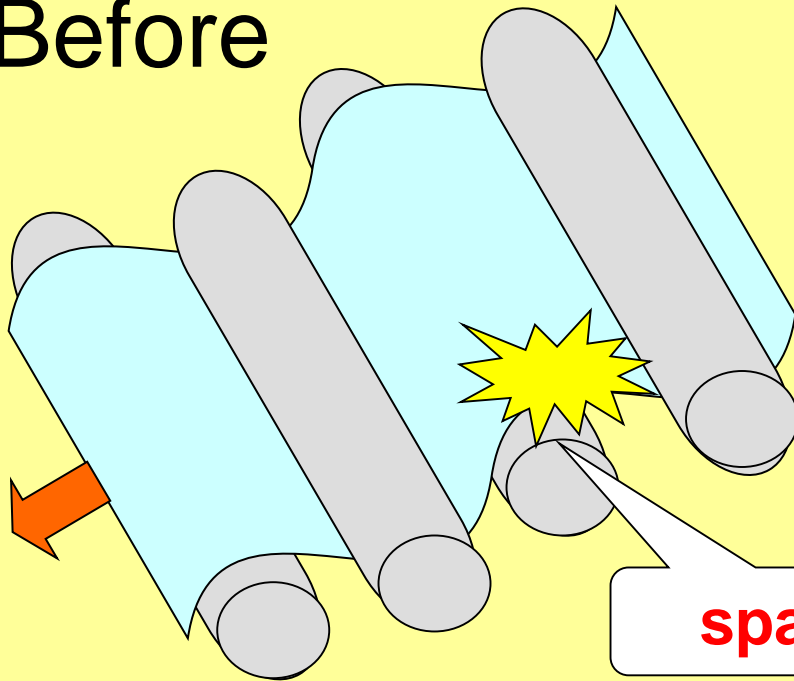
Electric conductivity reduces static electricity, and the adsorption of dirt and dust is drastically reduced!

**Application Examples:**

**Manufacturing processes and coating process for film, sheet, non-woven fabric, special paper etc.**

## Case5 Prevent occurrence of spark due to static electricity

### Before

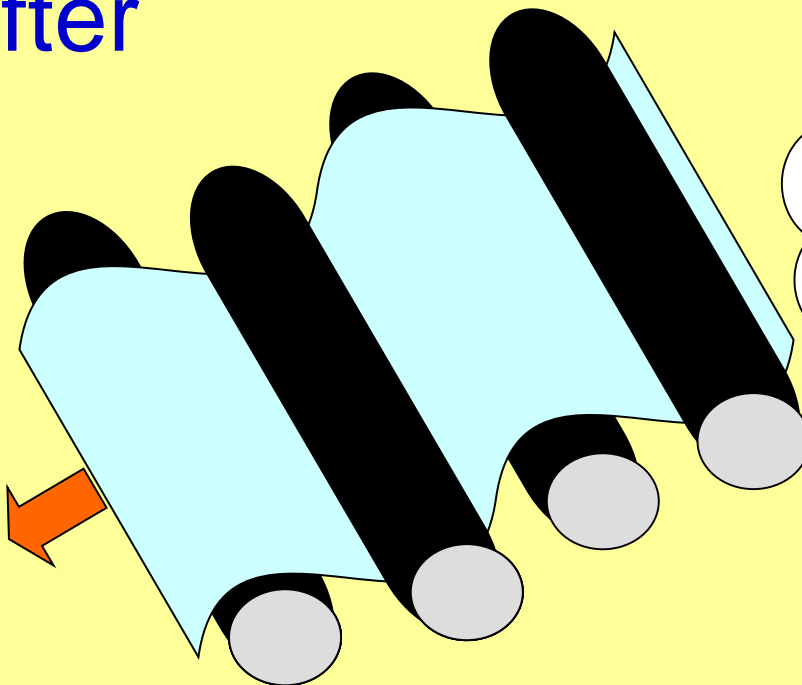


Is there any  
good way to  
reduce the  
worry about  
firing by spark  
caused by  
static electricity.

**spark**

### Just to cover with GRC-PB

### After



Electric  
conductivity  
reduces static  
electricity and  
the fear of fire  
is drastically  
reduced!

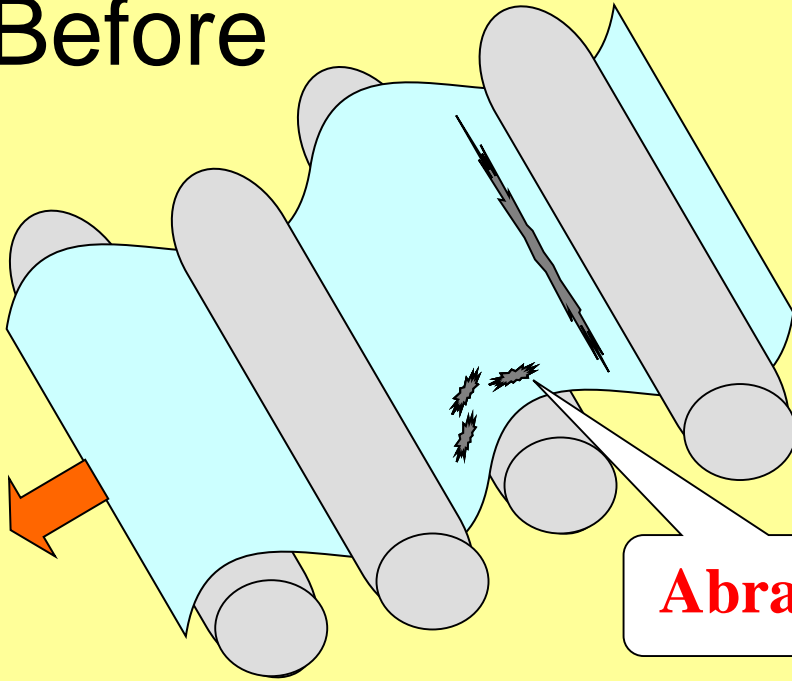
**Application Examples:**

**Coating process of film/ sheet, printing process of film/ paper**



## Case6 Prevent abrasions/ micro scratches due to static electricity

### Before

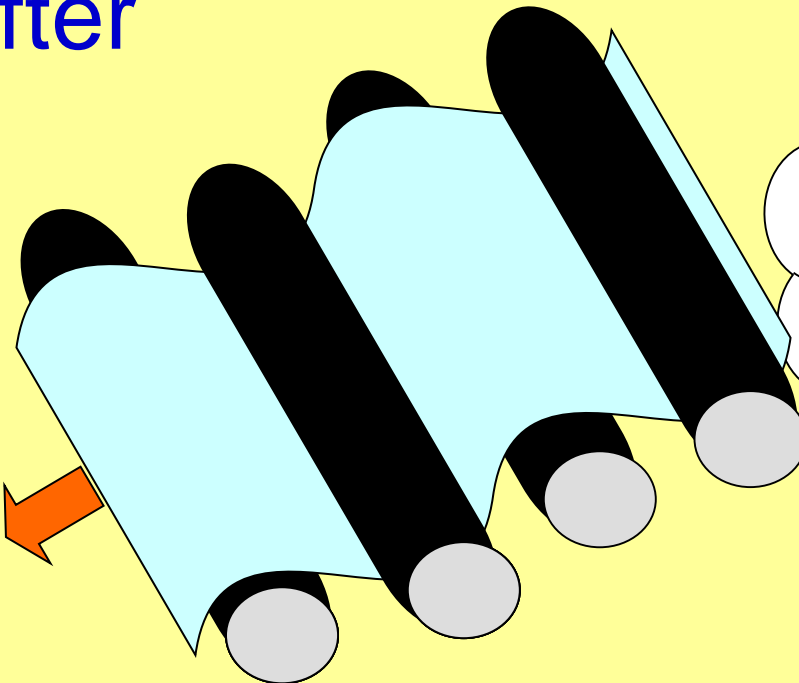


Is there any good way to avoid abrasions and micro scratches caused by static electricity?

**Abrasions**

### Just to cover with GRC-PB

### After

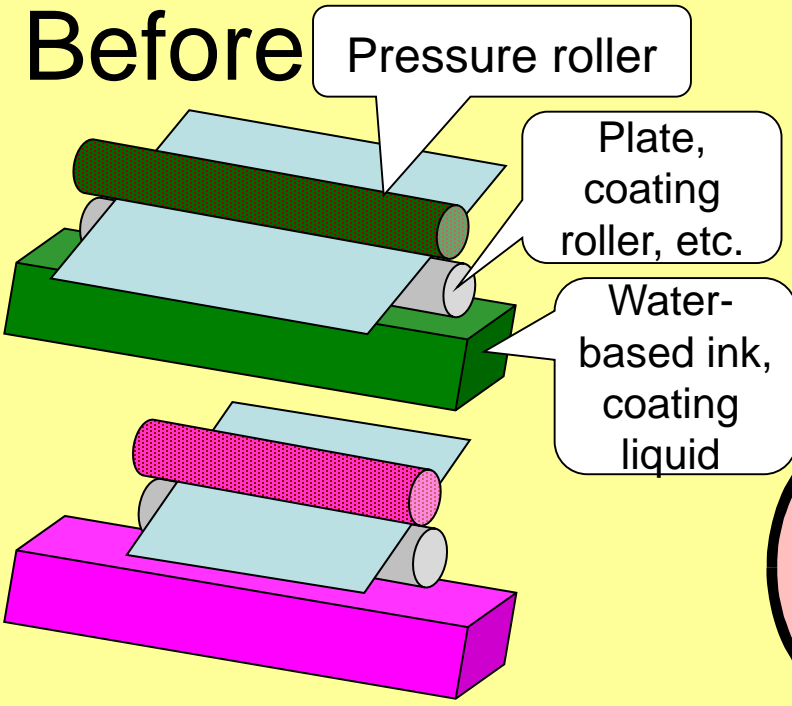


Electric conductivity reduces static electricity, and micro scratches and abrasions are drastically reduced!

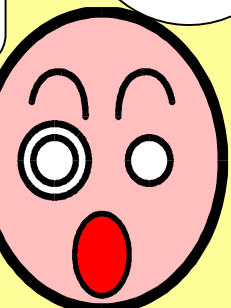
**Application Examples:**  
Manufacturing process and slitting process for film/ sheet

**Case7 Reduce roller consumption by using stain-resistant roller (water-based ink,solution)**

**Before**

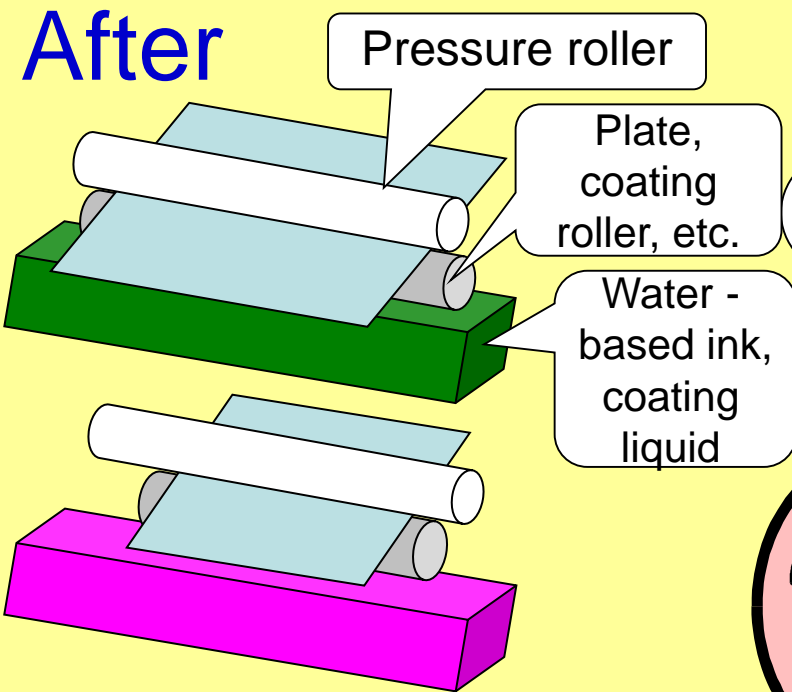


**It is necessary to prepare a lot of rollers to fit the printing width.. Is there any good way to reduce the number of rollers?**

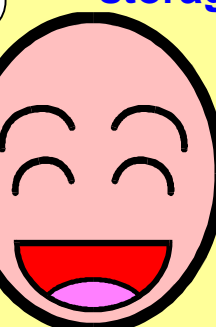


**Just to cover the GRC**

**After**



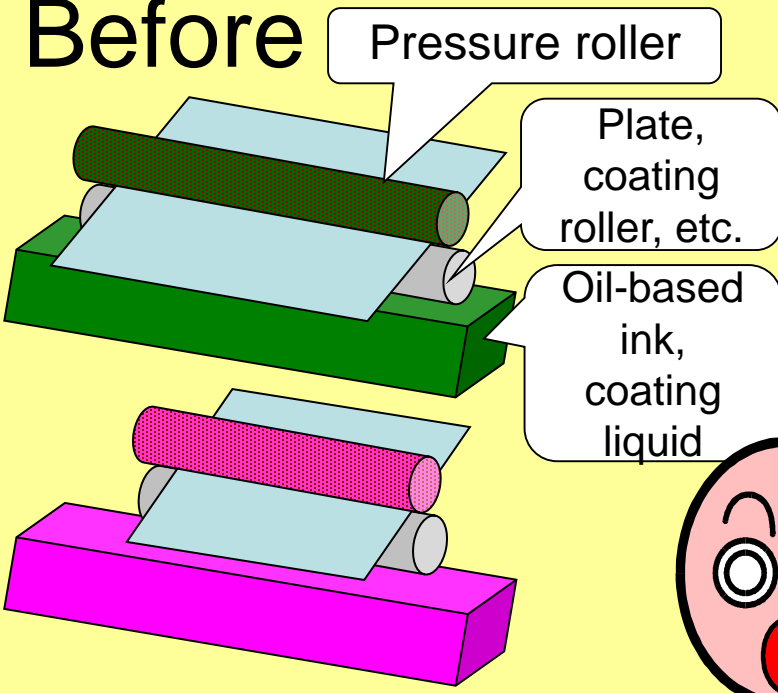
**Since the roller becomes stain-resistant, only one is OK. The number of rollers is reduced, and I can also save space for storage.**



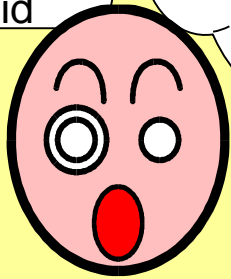
**Application Examples:**  
Gravure printing using water-based ink, presser roller for relief printing process, pressure roller for applying water-based chemical liquid in coating process, etc.

**Case8 Reduce roller consumption by using stain-resistant roller (oil-based ink,solution)**

**Before**

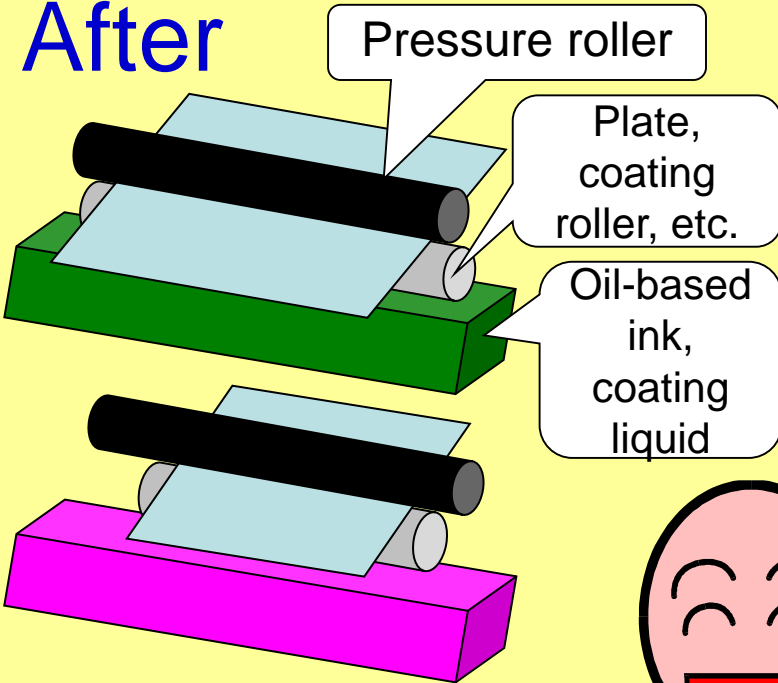


It is necessary to prepare a lot of rollers to fit the printing width.. Is there any good way to reduce the number of rollers? Since the ink is oil-based, I also worry about the static electricity.

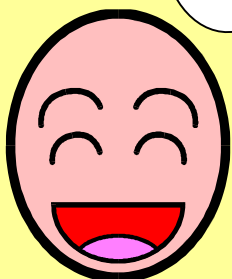


**Just to cover the GRC-PB**

**After**



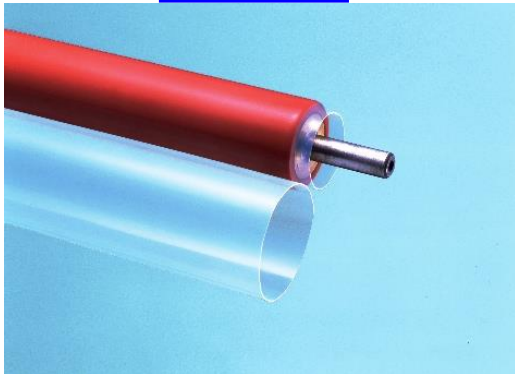
Since the roller becomes stain-resistant, only one is OK. The number of rollers is reduced, and I can also save space for storage. Because of electric conductivity, the worry of fire is also reduced.



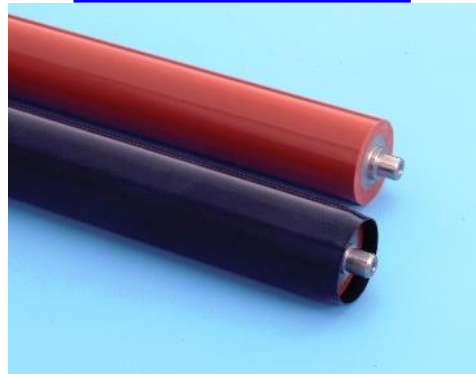
**Application Examples:**  
Gravure printing using oil-based ink, pressure roller for relief printing process, pressure roller for applying oil-based chemical liquid in coating process, etc.

# Fluorine resin Heat Shrinkable Tube GRC series

**GRC**



**GRC-PB**



## Main features

- Prevent adhesion of dirt
- The antistatic function in PB type
- Seamless, no joint or step
- Adhesion on roller is possible chemically etched inner surface
- There is no fear that the shrinkable tube is peeled from the roller
- Wide range of diameters to cover 17 ~ 300φ rollers is available



**Surface: fluorine**



**Back: chemically etched  
inner surface**

# Contact Information

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