

Example of peeling method for CYTOP film

Precautions for handling

Please be sure to read MSDS before using this product to ensure safe handling.

Because CYTOP film has excellent chemical resistance, it is used as a protective layer when WET etching. When CYTOP is left on after etching, it functions as a moisture-resistant coating. It can be removed using the procedure described below.

1 Peeling with oxygen etching

CYTOP film can be peeled off with oxygen etching.
 Oxygen etching rate = 0.1 to 1 $\mu\text{m}/\text{min}$. (Equipment dependence is high.)

2 Peeling with UV irradiation + water ultrasonic cleaning

The CYTOP film can be peeled with water ultrasonic cleaning after irradiating with a low-pressure mercury lamp.
 [Example of processing conditions] UV irradiation for 30 min. + Water ultrasonic cleaning for 60 min.

[Measuring conditions]

Measuring conditions	Sample number	
	No.1	No.2
UV irradiation time	10 min.	30 min.
Ultrasonic operation time	60 min.	60 min.

[Measurement results]

Peeling status for ultrasonic operation time

Ultrasonic operation time	Sample number	
	No.1	No.2
10 min.	Several % peel	40 % peel
30 min.	Several % peel	80 % peel
60 min.	5 % peel	100 % peel

[Material used]

Glass substrate 5 cm square

[CYTOP part number]

CTL-809A

[Application process]

- (1) Silane coupling agent KBE-903 (0.05 g) is applied as a spin coating.
 (Application conditions: 500 rpm x 20 sec. + 4,000 rpm x 20 sec.)
- (2) CYTOP (CTL-809A is diluted to 5%) is applied as a spin coating.
 (Application conditions: 500 rpm x 10 sec. + 4,000 rpm x 20 sec.)
- (3) Baking (Baking conditions: 60°C x 30 min. + 180°C x 60 min.)

[Equipment used]

- (1) UV irradiator
 Equipment manufacturer: SEN LIGHT
 Equipment name: PHOTO SURFACE PROCESSOR PM2006-N1
 Equipment specification: Low-pressure mercury lamp (184.9 nm, 235.7 nm) 6 lamps
 200W, 30A, 50 Hz
 Irradiation area: 450 mm x 450 mm
 Distance to light source: About 3 cm
- (2) Ultrasonic equipment: BRANSON 2510, 100 W

3 Peel by CYTOP solvent

Immerse CYTOP in CT-SOLV100E and rub it with an unwoven cloth wiper after ultrasonic processing.
 Then, it can be peeled off.

Note) If adhesion with the base material is strong, a few nm of CYTOP film may remain. (This can be judged by repellence to water. If the material becomes wet when sprinkled with water, peeling has been completed.) In this case, it is possible to peel the remained CYTOP with O₂ plasma processing.