



~ 100% Fluorine-Free ~

Designed to Meet Your Application Needs

- **Excellent Initial Performance**
- **Quite Good Durability : **>4x** vs. Previous Product**
- **Built for a **PFAS-regulated Future****



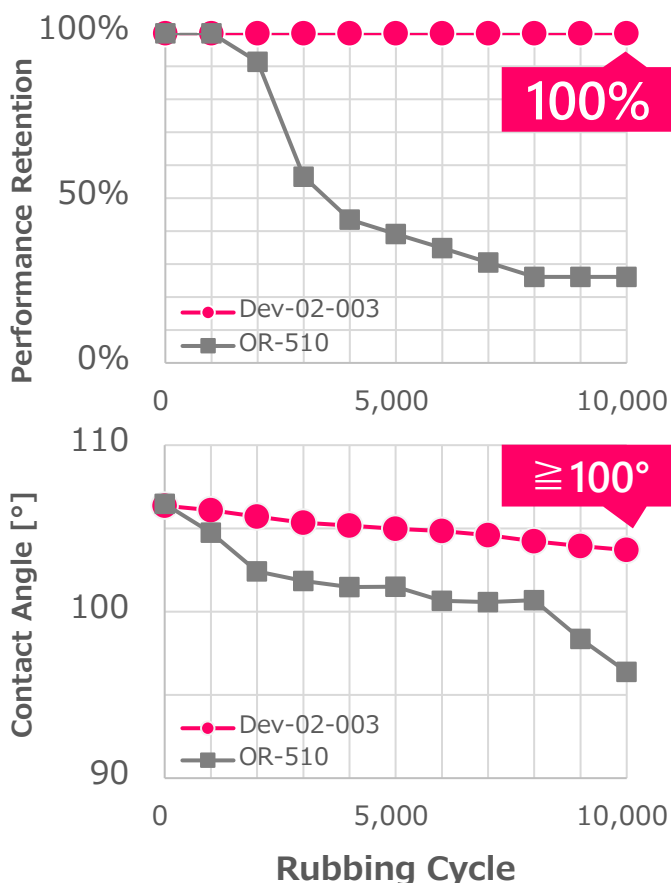
supplied in φ18mm
Cu-cup form

Features

Fluorine-free with Fluorine-like functionality

- ❑ **Abrasion Resistance** :Enhanced durability against friction
- ❑ **Water Repellent** :Prevents water droplets from adhering
- ❑ **Antifouling** :Improved removal of fingerprints and sebum
- ❑ **Water Sliding** :Smooth water run-off

Comparison of Performance Retention over Rubbing Cycles (New vs. Previous)



Test Item		Dev-02-003	OR-510
C.A. (2.5μL)	Water	109°	108°
	Hexadecane	37°	37°
S.A.	Water (30μL)	1°	1°
Dynamic friction coefficient ^{A)}		0.10	0.10
Performance Retention ^{B)} after 10,000 cycles		100%	23%
Solvent resistance ^{C)}		107°	108°

Data obtained from deposition on a BK7 glass substrate.

- A) Measured at 2.5 mm/sec under a 50 g load using nonwoven fabric as the friction material.
- B) Percentage of nonwoven samples that retained a water contact angle of $\geq 80^\circ$ under 1kgf/cm² pressure.
- C) Contact angle after wiping the membrane surface 100 times with ethanol-soaked nonwoven fabric.

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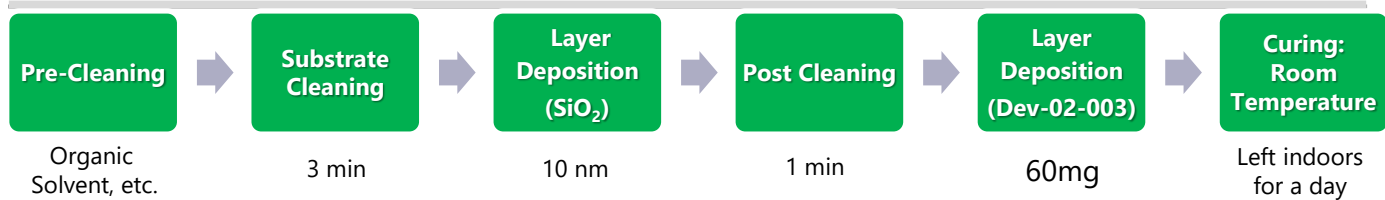
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Our Best Practice

To maximize the performance of Dev-02-003

Film Deposition Method



Film Deposition Conditions

Material		
	Antifouling layer	Dev-02-003 (60mg)
Conditions		
	Method	Vacuum evaporation
	Chamber diameter (mm)	1300
	Evaporating distance (mm)	1080
	Evaporation source	Dev-02-003: Resistance heating
	Substrate for deposition	Lens or substrate formed with SiO ₂ film, followed by deposition of Dev-02-003 layer
	Post Cleaning (after SiO ₂ layer deposition)	Ion beam cleaning Beam Voltage: 500 V Beam Current: 500 mA Oxygen gas flow: 40 sccm Argon gas flow: 10 sccm Duration: 1 min
	Starting vacuum level (Pa)	≤7.0 x 10 ⁻⁴
	Oxygen introduction (Pa)	None
	Ion assist	None
	Substrate heating temperature (°C)	Room temperature
	Deposited physical thickness	Until the target thickness is reached (as set)
Resistance heating conditions (Dev-02-003)		
	Current (A)	Time
	Evaporation	200 Until all components evaporate