

# INFORMATION of GD COATING



GD LABORATORY

Electroforming ,MEMS, Coating  
for Semiconductor

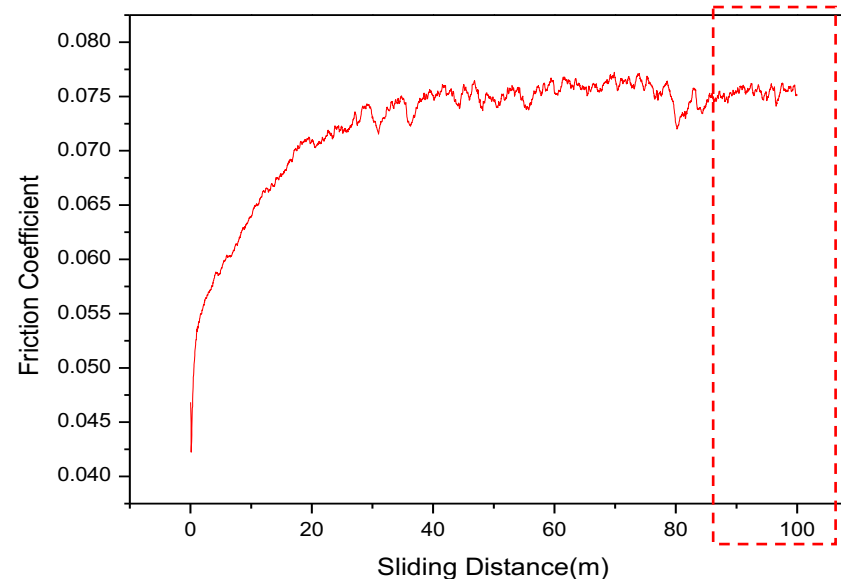
## Introduction

GD coating achieves strong adhesion and covering power by forming a chemical reaction layer by fusion of complex processes, and its coating exhibits better releasability, lubricity and abrasion resistance than Teflon coating .

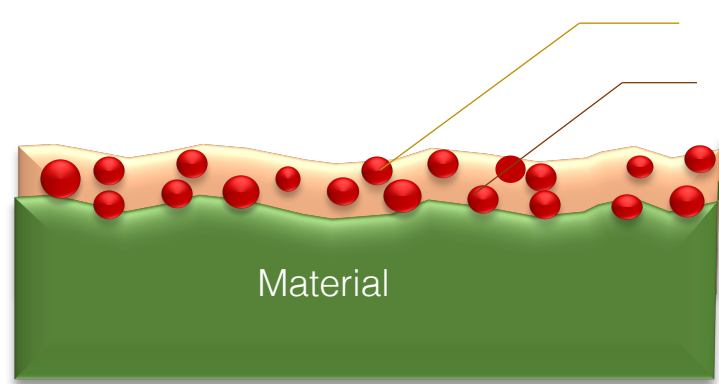
Moreover, due to its reaction mechanism, it demonstrates heat resistance effect of 500 °C.

## Abrasion resistance

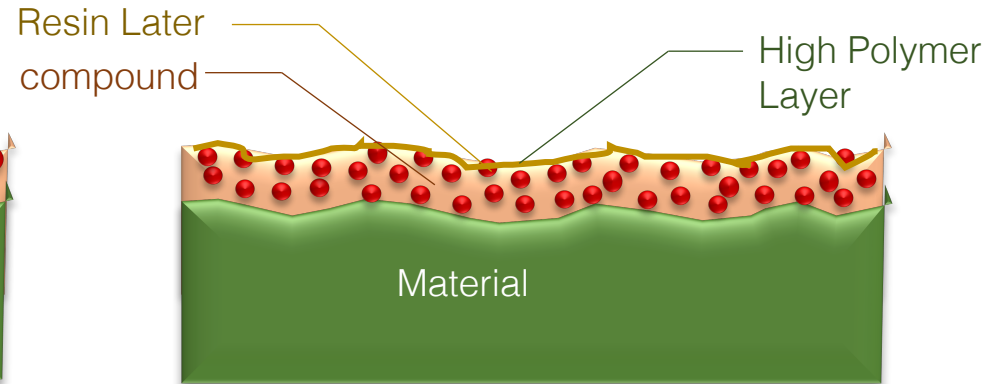
No change in friction coefficient even after 5,000 cycles ( 100 m) measurement



# Precipitation Mechanism

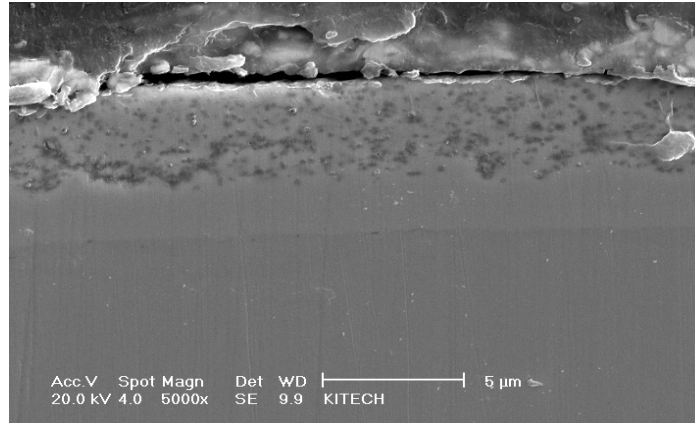


general fluorine coat

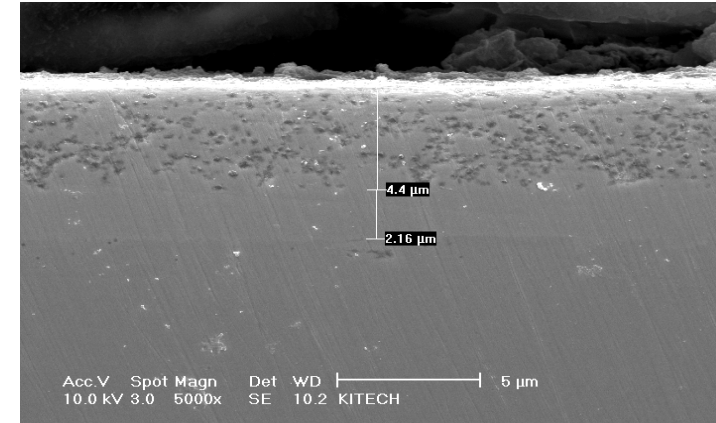


GD coat

# Cross section



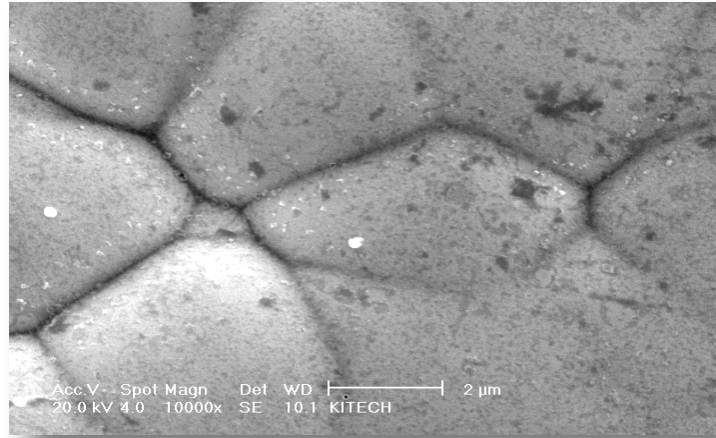
general fluorine coat



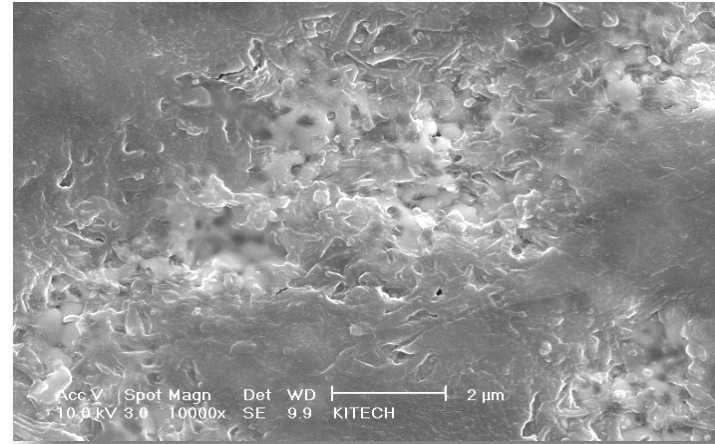
GD coat



# Surface photo

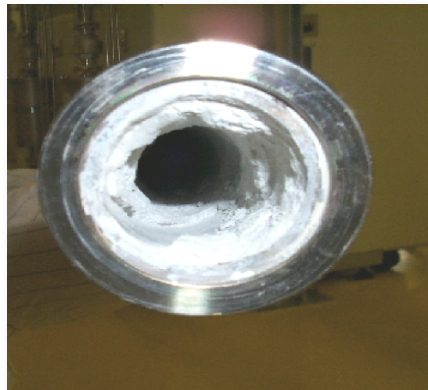


general fluorine coat

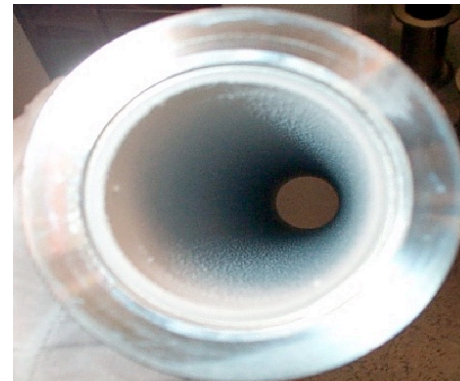


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# Gas scale adhesion state



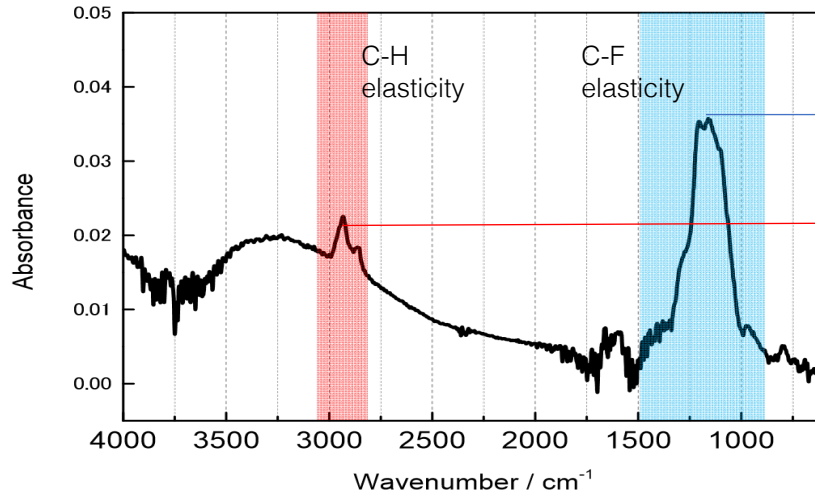
general fluorine coat



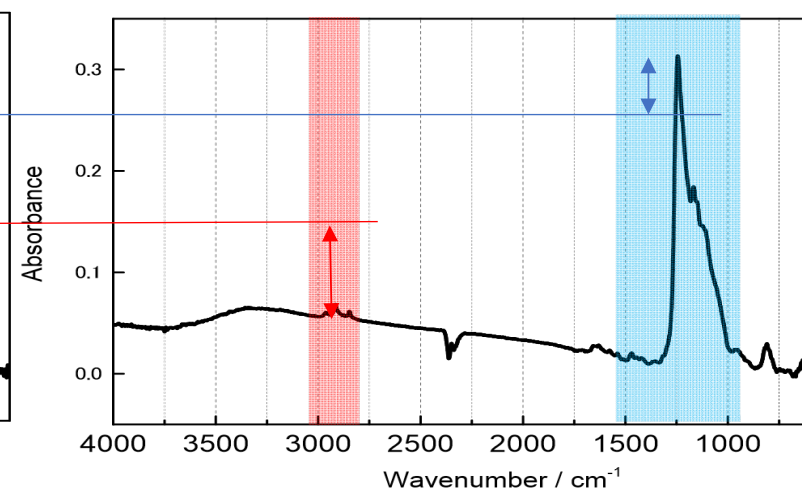
GD coat



# FT-IR measurement

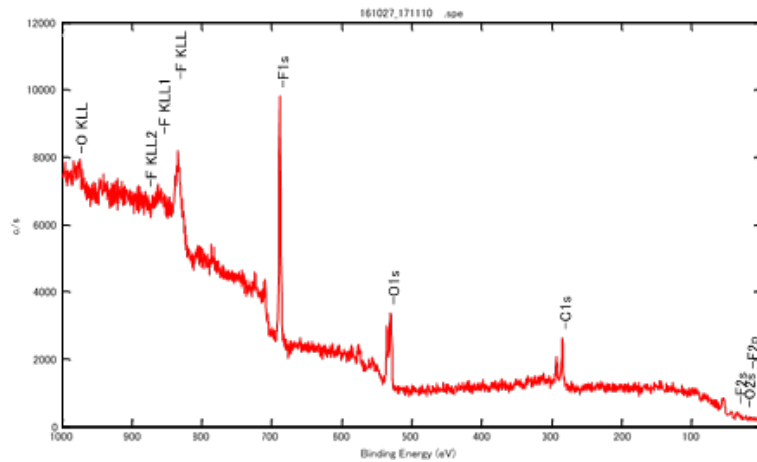


general fluorine coat

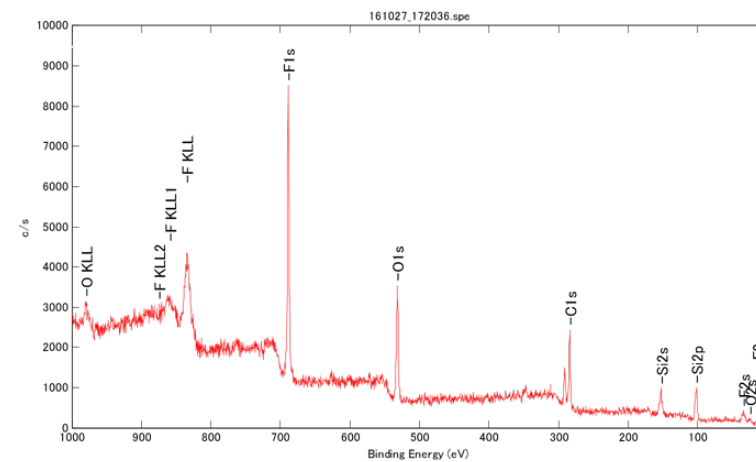


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# XPS measurement



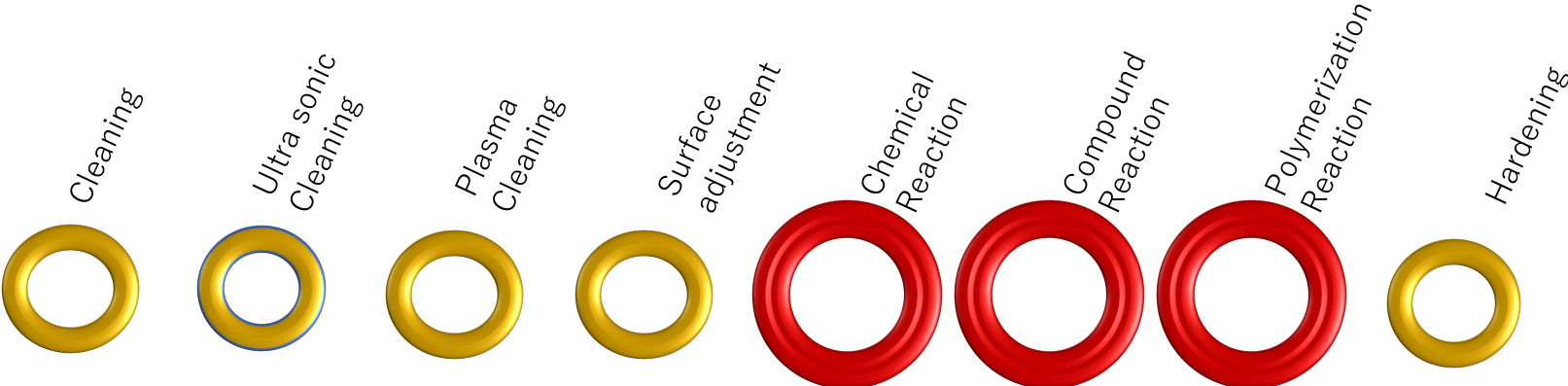
general fluorine coat



GD coat



# Process Flow



# Application

Applied Industry	Applicable Parts	Required Characteristic
Automobile / Mechanical parts	Bearings, Cylinders, Pistons, Shafts, Cardkeys	Lubricity, Abrasion resistance, Adherence, heat resistance
Mold / Tool	Rubber molding die, Resin molding die, Photosensitive drum, Radiator pipe, aluminum containers, Small connector	Releasability, Abrasion resistance, heat resistance, Non-stickness, Gas resistance, Chemical resistance
Semiconductor Electronic Parts	Vacuum parts ( Las scrubbers, pipes, valves), Various mounting chucks, Metal masks	Smoothness, Antithrombotic property, Releasability, Non-stickness, Gas-Chemical resistance, Antistatic ability, Insulation
Medical / Food	Injection needle, Stent, Artificial joint, Scalpel, Medical scissors, Food input hopper	Antibacterial ability, Corrosion resistance, Antithrombotic ability, Adherence, Lubricity
Others	Printing rolls, Shaving blades, barber scissors	Abrasion resistance, Corrosion resistance, Chemical resistance

