

# Gemini<sup>®</sup> Hydrophobic Oleophobic Hardcoat

## AnO-169

### [Introduction]

AnO-169 is a permanent hydrophobic and oleophobic hardcoating, it is solvent based one-part self-drying curing type, non-toxic and eco friendly. Combining interface compact adhesion, it has high transparency and 6H hardness, damp and heat resistance, acid and alkali resistance, super abrasion durability, it brings water and oil repellency to glass substrates, keeping it brightly transparent and abrasion resistant.

### [Typical Properties]

Properties	Units	AnO-169
Appearance	/	Transparent liquid
Viscosity	cSt@25°C	0.7
Flash point	°C	None
Curing Temperature / Time	/	1 min @room temperature

### [Performance]

Test Item	Test Method	AnO-169
Water/Oil contact angle	10~20 μ L Water / 10~20 μ L Hexadecane	118° / 75°
Film color/thickness	Observation / nm	Transparent/ 5~15
Hardness	Pencil hardness tester	> 6H
Adhesion	Cross-Cut Tester	Grade 0
Light Transmittance	Light transmittance tester, 380nm~780nm	> 95%
Abrasion Durability	Steel wool #0000 (2x2cm), load 1000g/cm <sup>2</sup> , stroke 4cm, speed 40 rpm,5000rds	> 105°
Solvent Resistance	99.5% alcohol whipping, load 500g/cm <sup>2</sup> , 100cycle	Good
Acid / Alkali Resistance	30%HCl、 30%NaOH drip on the substrate, standing time 24hrs	Good
High Temp/High Humidity	85°C × 85% RH × 100hrs	Good
Thermal Shock	-40°C × 1hr ⇄ 85°C × 1hr, 10cycle	Good
Salt Water Spray Test	5% NaCl, temperature 35°C, test time 1000 hrs	Good
Impact Resistance	300N/cm <sup>2</sup> front impact and back impact	Good
Heat Resistance	200°C × 30mins ⇄ 25°C × 15mins, 10cycle	Good

**[ Applications]**

Used in glass walls, medical equipment, furniture, solar panels, building construction / decoration materials, electrical appliance and electronic equipment shells/frame glass, optical windows, bathroom and swimming pool facilities, kitchen utensils / sinks, bathroom ware, outdoor marine and scenic facilities etc.

**[ Applicable substrates]**

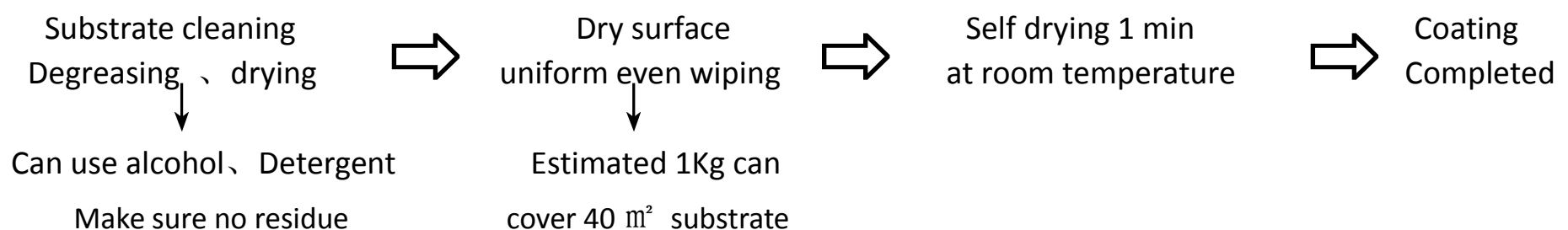
SiO<sub>2</sub> glass, ceramic.

**[ Processing Method]**

**Spraying, wiping. Suggest wiping with sponge pad or microfiber wiper, make sure the coating is uniform and even. The temperature of the surface to be coated should be -5°C~35°C. Keep containers at room temperature prior to use. All surfaces need to be dry and free from wax, grease, and polishes for good adhesion.**

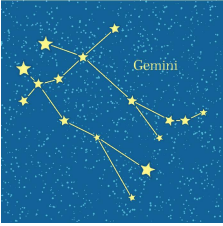
**Please clean the tools or spray gun with fluoro solvents before and after processing to avoid cross contamination. Wipe on cross hatch pattern with sponge pad or microfiber wiper. The spray gun is set to low pressure and low volume. One-time spraying can achieve certain effect, overlapping spraying can be done as needed. Curing time is 1 min at room temperature, then can move or transport, make it longer in winter.**

**The 1 min cured coating must continue to dry for over 3 hours to reach maximum durability, so suggest testing after 3 hours. For best long- term performance avoid imposing excessive mechanical friction or other surface treatments.**

**[Attention]**

- During processing, avoid direct contact with the skin, using gloves and safety glass in the test. If skin contacts with products, immediately wipe with a dry cloth and then wash skin with soap and water, If eyes contact with products, immediately flush eyes with plenty of water for at least 5 minutes, and call a physician.
- Keep the container sealed and store between 5~35°C, well ventilated locations, shelf life is 6 months.

**[Packaging/Transport]** 25Kg plastic jug. Not classified as dangerous in the meaning of transport regulations



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