

# Gemini<sup>®</sup> Superhydrophilic Anti Fog Agent AnF-115

## [Introduction]

AnF-115 is a top-notch permanent anti-fog coating agent. It is a water-based single part thermal curing coating, and it is resistant to abrasion and chemicals plus outstanding weatherability. It is best for SiO<sub>2</sub> based glass substrates. Other substrates like resins, crystals, metals etc require SiO<sub>2</sub> based primer treatment first. Applications for permanent anti-fog, anti-fouling, dust-proof, super-hydrophilic self-cleaning of glass substrates.

## [Typical Properties]

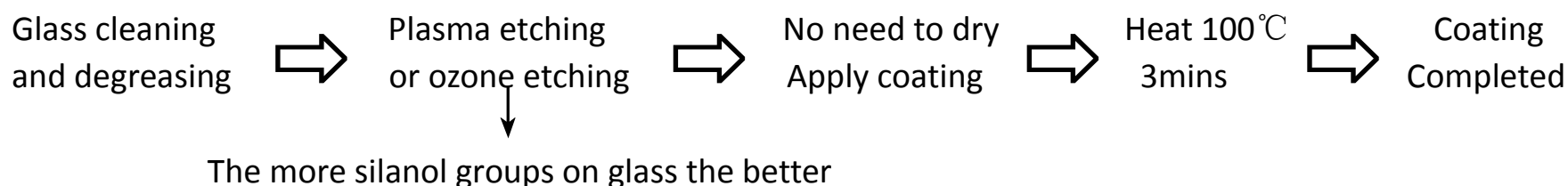
Properties	Units	AnF-115
Solid	Wt%	40
Appearance	/	Light yellow clear liquid
Viscosity	cSt@25℃	8
Coating Thickness	nm	< 80
Baking Temperature / Time	℃/min	100 / 3

## [Performance]

Test Item	Test Method	AnF-115
Super Hydrophilic	10～20 μ L Water	< 2°
Film Color	Observation	Colorless transparent
Hardness	Pencil hardness tester	> 8H
Light Transmittance	Light transmittance tester, 380nm~780nm	> 97%
Adhesion	Cross-Cut Tester	Grade 0
Abrasion Durability	Steel wool #0000 (2x2cm), load 500g/cm2, stroke 4cm, speed 40 rpm,1000rds	Good
Weatherability	UV weather test chamber,300hrs,color aberration within ∠E=1.0	Good
Water Soaking	Soaking in water 200hrs	Good
Alcohol Resistance	99.5% ethanol wipe, load 500g/ cm2, 100rds	Good
Thermal Shock	-40℃ × 1hr ⇄ 80℃ × 1hr,12cycle	Good
High Temp/High Humidity	85℃ × 85 %RH × 48hrs	Good
Anti Fouling	Draw mark pen on glass, marks fade out after water rinsing	Good

**[Processing Method]**

The coating is very simple and easy, any methods are doable, suggest coating with solid 8wt%, please dilute with 18 MΩ\*cm ultra pure water

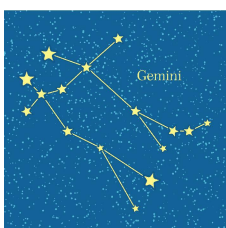


1kg (40%wt solution) is diluted by 5 times and becomes 5kg (8%wt operating solution), which can coat 4,000~5,000 m<sup>2</sup> film substrates. For the tape or glass spraying cases, due to the different recycling usage conditions of liquid, the respective coverage is about 150~200 m<sup>2</sup>.

**[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 in cool、well ventilated locations.

**[Packaging/Transport]** 1kg plastic bottle. Not classified as dangerous in the meaning of transport regulations



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