GS9

-AQHI / APSC

SolarIAQ

AIR PURIFICATION & SELF-CLEANSING COATING SYSTEM

CanaShield

SolarIAQ

Product Description

SolarIAQ is an advanced surface enrichment system designed for air purification and self-cleansing. This system features a penetrative thin film with multiple nano-grade catalysts, offering a range of benefits including self-cleansing, disinfection, anti-microbial properties, and air purification capabilities. It effectively decomposes organic matter and removes air contaminants, ensuring a cleaner and healthier environment. Any microbials reaching the treated surface will be decimated and decomposed, along with surrounding organic pollutants, thus maintaining surface hygiene with a lasting effect. For outdoor applications, microbials and organic pollutants falling onto the treated surface will be decomposed and detached from the anti-static surface. Additionally, due to its super hydrophilicity, rain droplets reaching the surface will form a mini water curtain and remove all residuals, thus keeping the surface clean with a long-lasting effect.

Uses

- Building Surfaces: Exterior walls, windows, glass panels, PMMA panels, concretes, bricks, tiles and panels of buildings.
- Infrastructure: Noise enclosures, roadside fences, flooring, tunnels, tiles and walls of underground roads, highways, road signs, posts and noise barriers.
- Miscellaneous: Vinyl structures, solar panels, pavilions for the elderly, automobiles and tents.

** Sufficient lighting may be required for interior applications.*

Properties

Description	Performance
pH value	7.5-10
Colour	Colourless
Film Structure	Anatase crystal structure
Film thickness	150-500nm
Film hardness	5-6 in Mohs scale
Average primary particle size	< 8nm
Active ingredient	Surface modified titanium dioxide and other conducting metals
Active ingredient content	7,500-10,000 ppm
Coverage rate	70-100m^2/L for high glossy surfaces e.g. glass and stainless steel 35-70m^2/L for non-glossy surfaces (subject to application method and substrate surface roughness)
Contact angle of water droplet	< 5°
Virucidal activity	>99.99% in 30 minutes
NOx Decomposition *(With presence of 10w/m^2 irradiance)*	>4μmol/m^2/hour

Features

- Air Purification: Decomposes pollutants such as PM2.5, VOC, NOx, formaldehyde, dioxin and tear gas (ISO 22197-1:2016).
- Disinfection: Removes molds, fungus, bacteria and viruses including SARS-CoV-2 (BS EN 14476:2019 & ISO 22196:2011).
- Self-Cleansing: Provides an anti-static and super hydrophilic surface (BS EN 1096-5:2016).
- Super Durable: Certified with scrubbing test of 10,000 brushes (ASTM D2486).
- Safe: pH neutral and tested by EPA accredited laboratories under FDA regulations.

Decompositon

Virus

Bacteria

Odour

PM 2.5
Particulate matter <2.5μm (micrometers 10^{-6})

Formaldehyde
CH_2O

VOC
Volatile organic compounds

Application

■ **Surface Preparation**

Surface cleaning or washing to remove oil, grease, debris, stain, paint, damaged membrane and loose coating.

■ **Coating Methods**

The SolarIAQ system should be applied by authorized applicators only.

1. Factory Application

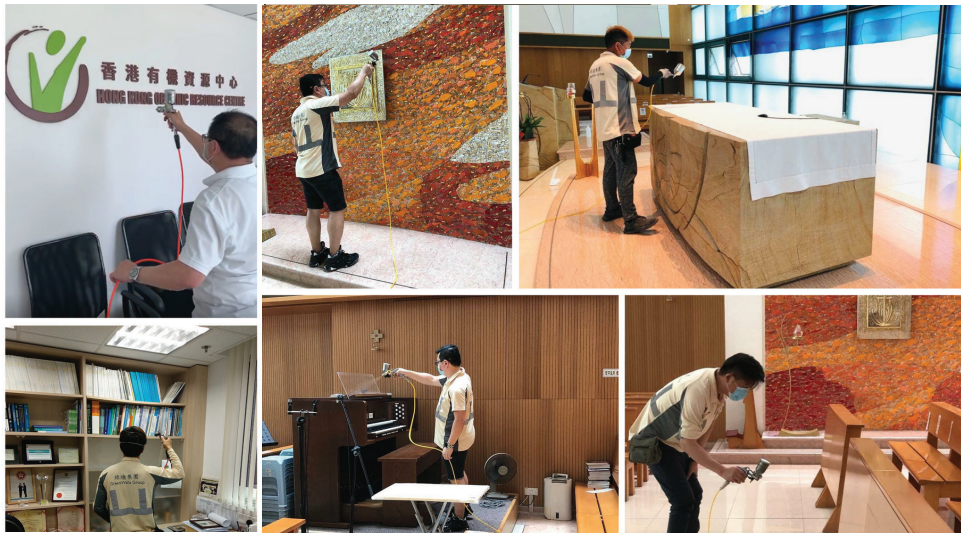
Building structure elements may be sent to the exclusive installation line of an appointed factory.

2. In-situ Application

- Surfaces should be cleaned and prepared before applying the SolarIAQ system using an exclusive nano-grade ULV atomizer.
- SolarIAQ thin films will be installed on surface using exclusive nano grade ULV atomizer through lateral movements. Tailor-made UVA lightings may be used for significant reduction of required curing time.
- Treated surfaces shall not be disturbed within 48 hours after in-situ installation of SolarIAQ system.

SolarIAQ CS9

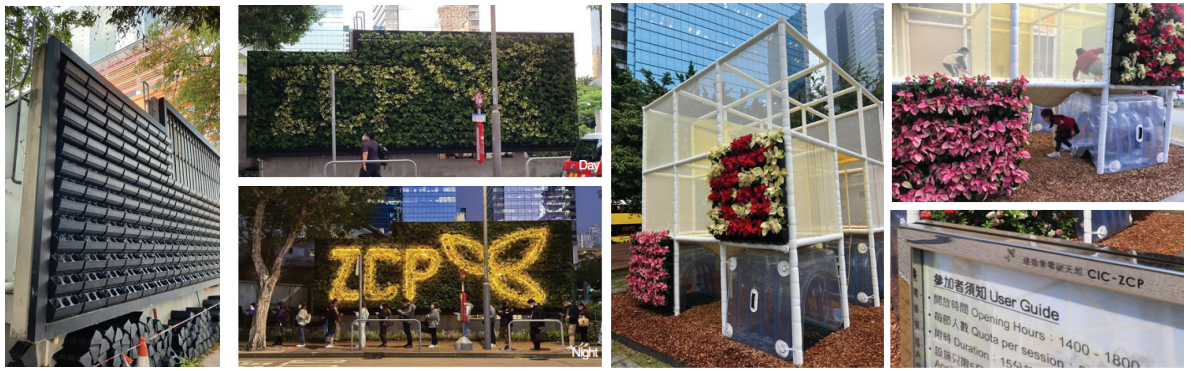
AQHI System 室內空氣長效淨化抗菌系統



Testing & Certification

Description	Standards	Results
Air-purification performance for the removal of nitric oxide	ISO 22197-1:2016	Decomposition rate of nitrogen oxides (NOx): For concrete = 23.04 mg/ m²/day For glass = 1.44 mg/m²/day
Self-cleaning performance on glass	BS EN 1096:5-2016	Pass
Antibacterial activity and efficacy	ISO 22196:2011 under 10,000 scrubbing by ASTM D2486	>99.99%
Virucidal activity and efficacy	BS EN 14476:2019	>99.99%

IAQ-Biotray Green Wall 空氣淨化垂直綠牆

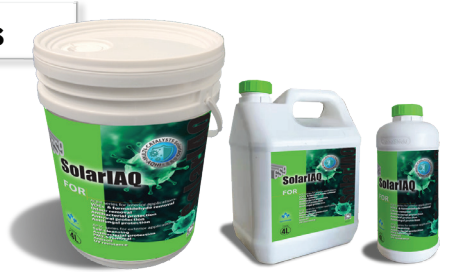


AIPV Canopy 空氣淨化太陽能天幕

Cautions

- Use under proper ventilation.
- The system shall not be applied during rainy days.
- Store in a sheltered place under dry conditions.
- In case of accidental eye or skin contact, wash immediately with water and seek medical attention if required.
- Safety precautions are recommended when handling the product or during application.

Packages



20 L / pail　4 L / jug　1 L / bottle

Manufacturer & Sole Agent
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