Optional Surface Enhancements for MCM Coverings

Wellness, Hygiene & Sustainability — Verified Performance, Strategic Value

🌿 Negative Oxygen Ion-Releasing Function (Optional)

Transform surfaces into active air purifiers. Integrated with Nano-scale technology, each square meter continuously generates over 49.7 billion negative ions per second — equivalent to the purification capacity of 4.2 mature trees. This breakthrough not only reduces airborne particulates and formaldehyde beyond standard benchmarks, but also delivers long-lasting freshness and healthier indoor environments. For projects that aspire to combine architectural beauty with measurable wellness and sustainability, this option sets a new benchmark.

Performance Highlights:

Negative Ion Generation: >49.7 billion ions/sec/㎡

Formaldehyde Removal Efficiency: 23.5% above standard

Long-Term Durability: 84.1% retention

Carbon Emission: 1.02 kg CO_2/㎡ (98.6% lower than stone)

Equivalent to removing 309 vehicles/year (Singapore baseline)

🛡️ Anti-Mold & Antiviral Surface Function (Optional)

Built-in hygiene for enclosed and high-traffic spaces. This non-UV antimicrobial variant uses variable-valence ions to continuously generate Reactive Oxygen Species (ROS) — decomposing pollutants and neutralizing microbes without relying on sunlight. Verified by third-party testing, it ensures 24/7 protection against bacteria, mold, and viruses, making it ideal for clinics, childcare centers, kitchens, and enclosed public areas.

Verified Performance:

Antibacterial: ≥99.9% (Grade I) — Staphylococcus aureus, E. coli

Antifungal: Grade 0 (Highest) — Aspergillus, Penicillium, Chaetomium

Antiviral: 99.31% reduction — Human Coronavirus (ISO 21702)

Formaldehyde Removal: ≥93.6%

Durability: ≥88.8% long-term effect

🔍 Comparison Overview

Feature	Negative Ion-Releasing	Anti-Mold & Antiviral
Mechanism	Nano-scale ion release	ROS via variable-valence ions
Activation	Passive, no light needed	Non-UV, indoor optimized
Primary Benefit	Air freshness, wellness	Hygiene, pollutant decomposition
Use Case	Wellness-focused projects	Hygiene-critical zones
Certifier Positioning	Ambient IAQ enhancement	ISO-tested microbial control