AT-705-AM – AM OUTDOOR

Part of the **AlphaSAFE** Antimicrobial Line

TECHNICAL DATA SHEET

AM OUTDOOR is a high-performance nano-ceramic coating that creates a hard, super slick, long lasting hydrophobic clear finish. AM OUTDOOR significantly reduces drag on treated surfaces in water, air, or other mediums. Treated surfaces also become self-cleaning and will repel water, ice, snow, dirt, marine organisms, etc. AM OUTDOOR is durable and provides excellent UV protection. AM OUTDOOR is an inert (benign) material that is safe for use in marine environments. The coating may be re-applied as needed to maintain optimal performance. Finish is available as either matte or glossy.

Proudly manufactured in the USA.

Technical Data

Color	Clear
Viscosity	16-18 sec. #2 Zahn
Percent of Solids (%)	19
V.O.C	Exempt per CFR 51.1 / Regulation 8
RoHS	Compliant
REACH	Compliant
Halogens	None
Thermal Stability (cured)	1200°F / 648.8°C
Conical Bond (1/8" Mandrel) (ASTM D522-93a)	Passed
Cross Cut Adhesion (ASTM D3359)	5B
Coefficient of Friction (ASTM D2047)	0.03µ
Specific Gravity (ASTM D891-09)	0.889
Pencil Hardness (ASTM D3363)	8h
Odor (liquid)	Slight Solvent
Odor (cured)	None

Drying and Coverage Rate

Average Applied Dry Film Thickness	2 to 3 microns
Estimated Coverage Rate (@ 2 microns)	3,870 ft² (360 m²) per gallon
Dry to Touch Time (@ 77°F / 25°C) *Warm airflow and/or exposure to sunlight will decrease drying time	1 – 5 minutes (average)
Ambient Cure (Full Properties)	5 days

Key Performance Properties

- Hydrophobic, water repellent surface.
- Significantly reduces friction & drag.
- Optically clear.
- Self-cleaning.
- Reduced maintenance.
- Anti-icing.
- UV resistance.
- Excellent adhesion. Creates intrinsic bond with the substrate.
- Durable.
- Non-flammable.
- Excellent coverage rate.
- Single component.
- Easily re-applied.
- Ambient cure, short dry time.
- Application by spray or wipe (roller).
- Environmentally friendly. VOC exempt. Will not harm marine life.
- RoHS and REACH compliant.

Common Applications

- Boats hulls (over gel-coat if required)
- Automobile windows and screens
- Scuba propulsion vehicles
- Glass windows (inside and outside)
- Solar panels
- Mirrors (interior or exterior)
- Aircraft windscreens

Supplemental Information

AM OUTDOOR is best suited for recreational or lower use vehicles. AM OUTDOOR is suited for cold climates, with mild and warm climate grades. AM OUTDOOR PRO is a higher solids, longer lasting slick coating best suited for commercial and military applications.

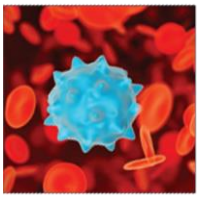
ALPHATEK MATERIALS, LLC 2372 Morse Ave., Ste. 167, Irvine, CA 92614 contact@alphatekmaterials.com

AlphaTek AlphaSAFE – Antimicrobial Additive Information

PROTECTING LIFE'S SURFACES

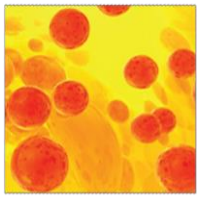
AlphaTek Materials is a leading innovator in advanced materials, performance coatings, and surface disinfection & sanitation solutions. AlphaTek's antimicrobial surface disinfectant sprays and coatings combine leading edge technologies to disinfect, sanitize, and protect non-biological surfaces from dangerous microorganisms.

AlphaTek's antimicrobial coatings protect almost any surface including floors, walls, doors, cookware, counters, tables, vehicles, operating rooms, handrails, elevators, clear plastics, textiles, and fabrics.



AlphaTek's High-Performance Nano-Ceramics

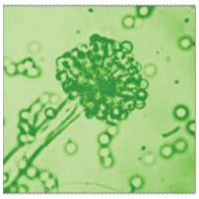
AlphaTek utilizes proprietary aerospace nano-ceramics to create a range of high-performance coatings. The nano-ceramic coatings covalently bond to almost any surface for long-term adhesion and extreme durability. AlphaTek's nano-ceramic coatings are low-VOC, easy to apply, and air cure under ambient conditions. Treated surfaces are hydrophobic and oleophobic. The ceramic matrix protects against abrasion, chemicals, and UV-radiation for the life of the coating.



AlphaTek Materials' Antimicrobial Additive

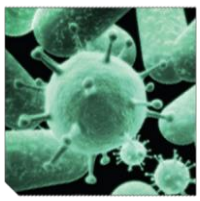
AlphaTek uses a powerful organosilicon-based antimicrobial additive that is an effective surface disinfectant and adds continuous biostatic (bacteriostatic, fungistatic, and algistatic) properties to coated surfaces. The antimicrobial is blended throughout the entire thickness of the coating for long-term antimicrobial durability.

The antimicrobial additive creates a network of electrically charged molecules on the exposed surface that ruptures the cell membrane of microorganisms that come into contact with the coating. The antimicrobial's physical kill mechanism is highly effective and does not promote the development of drug-resistant superbugs.



Other key properties of AlphaTek's antimicrobial additive:

- EPA Registered (83019-1) & NSF-51 Approved and FDA-compliant for Food Contact Surfaces.
- Protects plastics, textiles, and other coated surfaces from colonization by a wide variety of pathogens, viruses, bacteria, mold, algae, and other microorganisms.
- Proven effective to protect treated surfaces against colonization by Influenza and Human Coronavirus (untested against COVID-19).
- Does not contain any heavy metals and does not leach chemicals or metals out of the coating.
- Non-toxic and non-hazardous to humans and pets when used as directed.
- No transdermal absorption.



The antimicrobial properties help to continuously protect treated surfaces from potential colonization by a growing list of microorganisms, including:

- Coronavirus, Human
- Acinetobacter calcoaceticus
- Aeromonas hydrophilia
- Alternaria alternata
- Anabaena cylindricia
- Aspergillus flavus
- Aspergillus fumigatus
- Aspergillus Niger
- Bacillus cereus
- Bacillus subtilis
- Bacillus typhimurium
- Bipolaris australiensis
- Candida albicans
- Candida parapsilosis
- Cephaldascus fragans
- Chlorella
- Chlorophyta (green)
- Chrysophyta (brown)
- Citrobacter diversus
- Cladosporium herbarum
- Clonostachys rosea
- Clostridium perfringens
- Corynebacterium bovis
- Corynebacterium diphtheriae
- Cryptococcus humicola
- Cutibacterium acnes
- Enterobacter aerogenes
- Enterobacter agglomerans
- Enterobacter cloacae
- Enterococcus
- Enterococcus faecalis
- Epidermophyton floccosum
- Escherichia coli
- Fusarium nigrum
- Fusarium solani
- Geotrichum candidum
- Gliocladium roseum
- Gliomastix cerealis
- Klebsiella pneumoniae
- Klebsiella terrigena
- Iternaris species
- Mariannaea elegans
- Microsporum audouinii
- Monilia grisea
- Mycobacterium tuberculosis
- Oospora lactis
- Oospora lactis sp
- Oscillatoria borneti
- Penicillium albicans
- Penicillium chrysogenum
- Penicillium citrinum
- Penicillium notatum
- Penicillium variabilei
- Penicilliumn notatum
- Pleurococcus
- Proteus mirabilis
- Proteus vulgaris
- Protococcus
- Pseudomonas aeruginosa
- Pseudomonas cepacia
- Saccharomyces cerevisiae
- Salmonella enterica
- Salmonella typhi
- Salmonella typhimurium
- Scenedesmus quadricauda
- Selenastrum gracile
- Serratia liquefaciens
- Serratia marcescens
- Stachybotrys atra
- Stachybotrys chartarum
- Staphylococcus aureus
- Staphylococcus epidermidis
- Streptococcus faecaliis
- Streptococcus pyrogenes
- Trichoderma flavus
- Trichophyton interdigitale
- Trichophyton mentagrophytes
- Trichosporon mucoides
- Vancomycin-resistant enterococci

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