

AT-1661-AM – AM EDGE

Part of the **AlphaSAFE** Antimicrobial Line

TECHNICAL DATA SHEET

AM EDGE is an FDA-compliant food safe non-stick nano-ceramic coating suitable for use on cutting instruments and blades. AM EDGE reduces drag, keeps edges sharper longer and prevents corrosion without the need for oil. Treated blades work better for longer with less need for maintenance. AM EDGE is easy to apply and extremely durable. Surfaces may be easily re-coated when required.

Proudly manufactured in the USA.

Technical Data

Color	Clear
Viscosity	12 sec. #2 Zahn
Percent of Solids (%)	14
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 (@ 3 microns)	1,900 ft ² (175 m ²) per gallon
Dry to Touch Time (@ 77°F / 25°C) *Exposing to a warmer air flow (not exceeding 110°F) will reduce drying time	15 – 25 minutes (average)
Ambient Cure (Full Properties) *Exposing to a warmer air flow (not exceeding 110°F) will shorten cure time.	12+ hours
After Curing Process	Wash before use

Key Performance Properties

- Non-stick.
- Reduces drag.
- Keeps edges sharper for longer.
- Prevent corrosion without the need for oil.
- Easy clean.
- FDA-compliant for food contact.
- Inert (benign) material once cured.
- Easy application by wipe or spray.
- May be re-coated as needed for long term performance.
- Cures under ambient conditions.
- Excellent adhesion. Creates a covalent bond to the substrate for long-term durability.
- Applies thin (2-3 micron dry film thickness).
- RoHS and REACH compliant.

Common Applications

- Cutlery
- Utility knives
- Exacto blades
- Industrial blades

Coated Blades

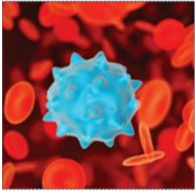


ALPHATEK ALPHASAFE – ANTIMICROBIAL ADDITIVE INFORMATION

PROTECTING LIFE'S SURFACES

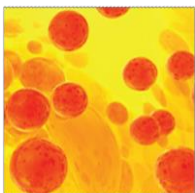
ALPHATEK MATERIALS IS A LEADING INNOVATOR IN ADVANCED MATERIALS, PERFORMANCE COATINGS, AND SURFACE DISINFECTION & SANITATION SOLUTIONS. ALPHATEK'S ANTIMICROBIAL SURFACE DISINFECTANT SPRAYS AND COATINGS COMBINE LEADING EDGE TECHNOLOGIES TO DISINFECT, SANITIZE, AND PROTECT NON-BIOLOGICAL SURFACES FROM 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

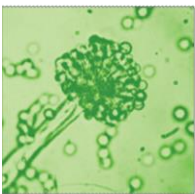
AlphaTek utilizes proprietary aerospace nano-ceramics to create a range of high-performance coatings. The nano-ceramic coatings covalently bond to almost any surface for long-term adhesion and extreme durability. AlphaTek's nano-ceramic coatings are low-VOC, easy to apply, and air cure under ambient 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

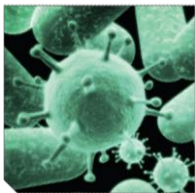
AlphaTek uses a powerful organosilicon-based antimicrobial additive that is an effective surface disinfectant and adds exceptional continuous bacteriostatic, fungistatic, and algistatic properties to coated surfaces. The antimicrobial is blended throughout the entire thickness of the coating for long-term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

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



FOR MORE INFORMATION & SALES, CONTACT:

ALPHATEK MATERIALS, LLC

2372 MORSE AVENUE, STE. 167, IRVINE, CA 92614

+1-949-387-4271 | CONTACT@ALPHATEKMATERIALS.COM

WWW.ALPHATEKMATERIALS.COM

